

Access DB# 87109

## SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Callie Shosho Examiner #: 75636 Date: 2/27/03  
Art Unit: 1714 Phone Number 305 0208 Serial Number: 091800, 572  
Mail Box and Bldg/Room Location: CP3-5021 Results Format Preferred (circle): PAPER DISK E-MAIL  
CP3-4001 (mailbox)

If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Coloring Composition, Ink-Jet Ink, and Ink-Jet Recording Method  
Inventors (please provide full names): Yuki Mizukawa, Keizo Kimura

Earliest Priority Filing Date: 3/27/00 052000 75636 091800, 572

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Can you please find the dye of claim 1?

27/03

Thank you

### STAFF USE ONLY

	Type of Search	Vendors and cost where applicable
Searcher: _____	NA Sequence (#) _____	STN _____
Searcher Phone #: _____	AA Sequence (#) _____	Dialog _____
Searcher Location: _____	Structure (#) _____	Questel/Orbit _____
Date Searcher Picked Up: _____	Bibliographic _____	Dr.Link _____
Date Completed: _____	Litigation _____	Lexis/Nexis _____
Searcher Prep & Review Time: _____	Fulltext _____	Sequence Systems _____
Clerical Prep Time: _____	Patent Family _____	WWW/Internet _____
Online Time: _____	Other _____	Other (specify) _____

Hi Callie,

I did a main structure search and two substructure searches. The first subset involved the two compounds (XIX) and (XX) on pg. 5 of the claims. These two compounds had a sulfur in the ring. I didn't get any hits for either of these structures. I made the subset search as broad as possible - I allowed for the sulfur to be anywhere in the ring, and even allowed for additional sulfurs in the ring.

The next subset was for the rest of the compounds - that had a nitrogen in the ring. For this search I also added in a screen to pick up the carbon in the ring, double bonded to an oxygen (carbonyl). NOTE - I didn't specify the double bond between the N=A, because I wanted to give you at least some answers. For this subset search, I obtained 18 answers (L22) in Chemical Abstracts, and 1 hit in Caold (L38) which I printed out for you.

If you have any additional questions, please feel free to call me anytime.

John

308-4139

=> file reg

FILE 'REGISTRY' ENTERED AT 09:20:32 ON 05 MAR 2003  
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.  
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.  
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STRUCTURE FILE UPDATES: 3 MAR 2003 HIGHEST RN 496834-05-0  
DICTIONARY FILE UPDATES: 3 MAR 2003 HIGHEST RN 496834-05-0

TSCA INFORMATION NOW CURRENT THROUGH MAY 20, 2002

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

=> d his

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FILE 'LREGISTRY' ENTERED AT 08:31:31 ON 05 MAR 2003

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L2      STR
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      E US20020017217/PN
L19     1 S E3
      SEL L19 RN

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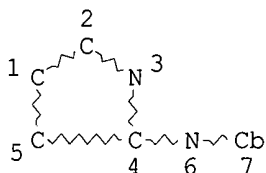
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L23 2886 S L20  
S L3 NOT L22  
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L25 2399 S COLOR? OR COLOUR? OR DYE? OR PIGMENT? OR STAIN? OOR PAINT? OR  
L26 262 S INK(W)JET? OR INKJET? OR PRINT?

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L29 168249 S L26  
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L32 101 S L30 AND (INKJET? OR INK(N)JET?)  
L33 12 S L22 AND L25  
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L35 7 S L22 AND L26  
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L37 6 S L22 NOT L36

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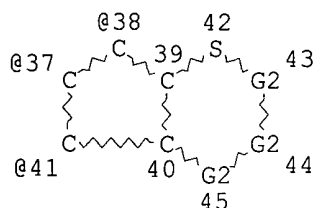
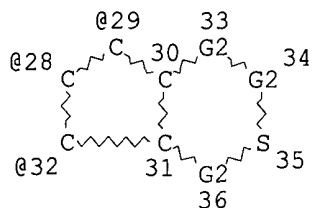
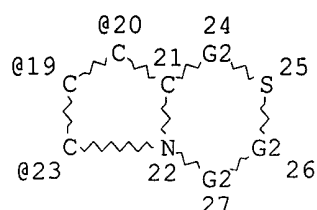
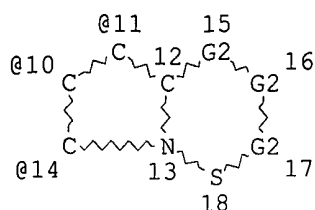
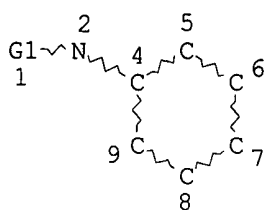
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L3 STR



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GGCAT IS UNS AT 7  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE  
L4 3412 SEA FILE=REGISTRY SSS FUL L3  
L13 STR



Callie,

As you can see,  
I made this as  
broad as possible.

VAR G1=11/10/14/23/19/20/32/28/29/41/37/38

VAR G2=C/S

NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 44

STEREO ATTRIBUTES: NONE

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100.0% PROCESSED 404 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.01

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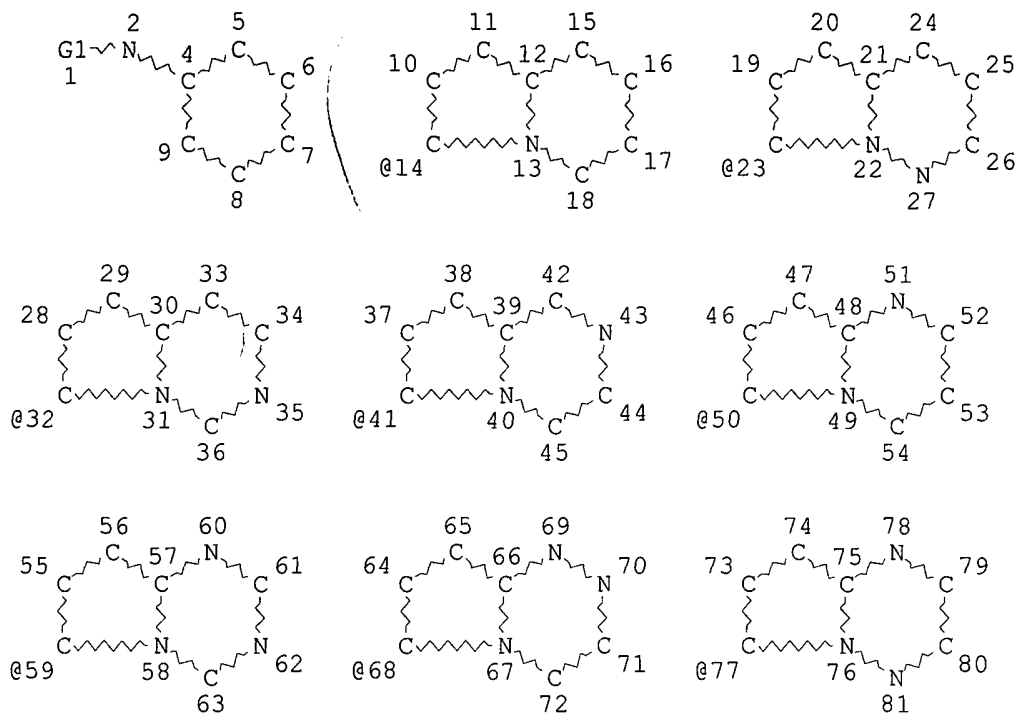
L1 STR

A = N (cations)

A = 2

→

→ . . .



Callie,  
These 8 compounds  
were the ones  
listed in your  
abstract.

John.

VAR G1=14/23/32/41/50/59/68/77

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DEFAULT ECLEVEL IS LIMITED

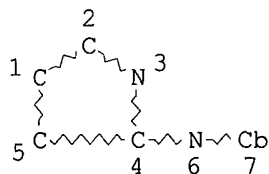
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L3 STR



NODE ATTRIBUTES:

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GRAPH ATTRIBUTES:

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NUMBER OF NODES IS 7

STEREO ATTRIBUTES: NONE

L4 3412 SEA FILE=REGISTRY SSS FUL L3

L14 SCR 1263 OR 1135 OR 1440

L21 88 SEA FILE=REGISTRY SUB=L4 SSS FUL L1 AND L14

100.0% PROCESSED 126 ITERATIONS  
SEARCH TIME: 00.00.01

88 ANSWERS

=&gt; file hca

FILE 'HCA' ENTERED AT 09:21:13 ON 05 MAR 2003  
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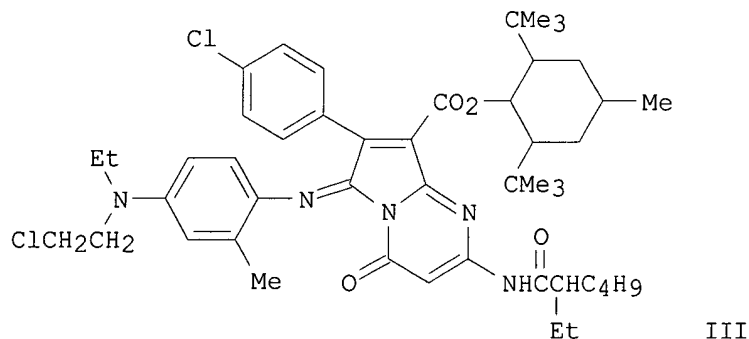
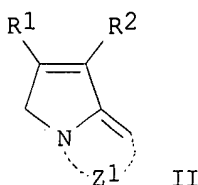
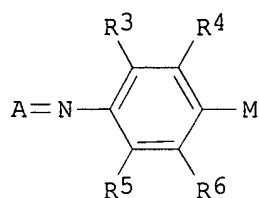
FILE COVERS 1907 - 27 Feb 2003 VOL 138 ISS 10  
FILE LAST UPDATED: 27 Feb 2003 (20030227/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=&gt; d L36 1-12 cbib abs hitind hitstr

L36 ANSWER 1 OF 12 HCA COPYRIGHT 2003 ACS  
135:274350 **Colored** compositions containing oil-soluble **dyes**  
, **ink-jet** inks, and **ink-jet**  
recording. Mizukawa, Hiroki; Kimura, Keizo (Fuji Photo Film Co., Ltd.,  
Japan). Jpn. Kokai Tokkyo Koho JP 2001271002 A2 20011002, 56 pp.  
(Japanese). CODEN: JKXXAF. APPLICATION: JP 2000-87538 20000327.

GI



AB The compns. contain oil-sol. **dyes** I [A = II (R1 = H, substituent; R2 = substituent; Z1 = nonmetals for N-contg. six-membered heterocycle); R3-R6 = H, substituent; M = OY, NR7R8 (Y = H, cation species; R7, R8 = alkyl, aryl, heterocycle, acyl, alkylsulfonyl, arylsulfonyl; R7R8 may form ring); R4R7 and/or R6R8 may form ring; R3R4 and/or R5R6 may form ring]. Thus, a **colored** fine particle dispersion contg. sec-Bu acrylate-acrylic acid copolymer Na salt and an oil-sol. **dye** III, diethylene glycol, glycerin, triethylene glycol monobutyl ether, Na sulfohexaethylene glycol monododecyl ether, Na di(2-ethylhexyl) sulfosuccinate, and H2O were mixed to give an ink showing good **color** tone and water and light resistance.

IC ICM C09B055-00

ICS B41J002-01; B41M005-00; C09B067-40; C09B067-46; C09D011-00; C09D017-00

CC 42-12 (Coatings, Inks, and Related Products)  
Section cross-reference(s): 41, 74

ST **colored** compn heterocycle **ink jet** recording;  
oil soluble **dye ink jet** recording

IT **Ink-jet printing**  
(**colored** compns. contg. oil-sol. **dyes**, **ink**  
**-jet** inks, and **ink-jet** recording)

IT **Inks**  
(**jet-printing**; **colored** compns. contg.  
oil-sol. **dyes**, **ink-jet** inks, and  
**ink-jet** recording)

IT **Dyes**  
(oil-sol.; **colored** compns. contg. oil-sol. **dyes**,  
**ink-jet** inks, and **ink-jet**  
recording)

IT 309934-07-4P 347368-38-1P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(**colored** compns. contg. oil-sol. **dyes**, **ink**

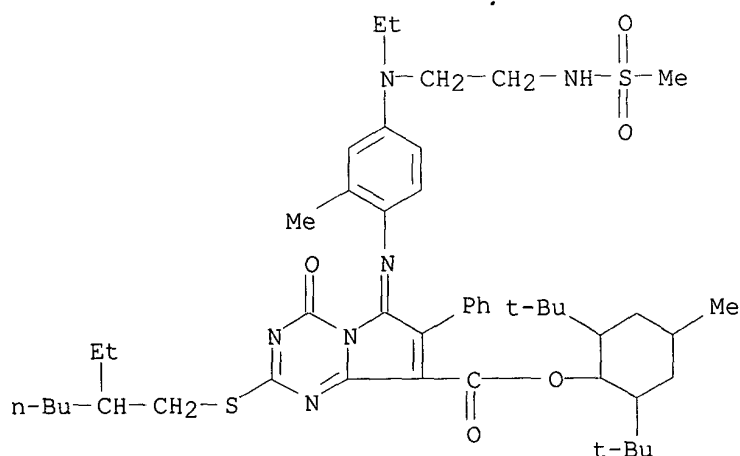


(colored comps. contg. oil-sol. dyes, ink  
-jet inks, and ink-jet recording)

IT 67906-95-0 347368-40-5 347368-58-5 347368-64-3  
347368-68-7 347368-70-1 363158-97-8 363158-99-0  
363159-01-7 363159-02-8 363159-04-0 363159-05-1  
363159-06-2 363159-07-3 363159-08-4  
363159-09-5 363159-10-8 363159-11-9  
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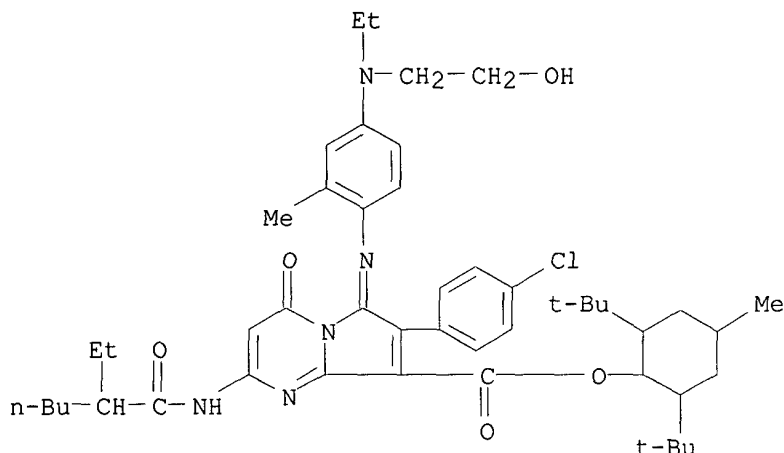
IT 309934-07-4P 347368-38-1P  
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or  
engineered material use); PREP (Preparation); USES (Uses)  
(**colored** compns. contg. oil-sol. **dyes, ink**  
**-jet inks, and ink-jet** recording)

RN	309934-07-4	HCA
CN	Pyrrolo[1,2-a]-1,3,5-triazine-8-carboxylic acid, 2-[(2-ethylhexyl)thio]-6- [[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-4,6- dihydro-4-oxo-7-phenyl-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)	



RN 347368-38-1 HCA  
CN Pyrrolo[1,2-a]pyrimidine-8-carboxylic acid, 7-(4-chlorophenyl)-6-[[4-[ethyl(2-hydroxyethyl)amino]-2-methylphenyl]imino]-2-[(2-ethyl-1-

oxohexyl)amino]-4,6-dihydro-4-oxo-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



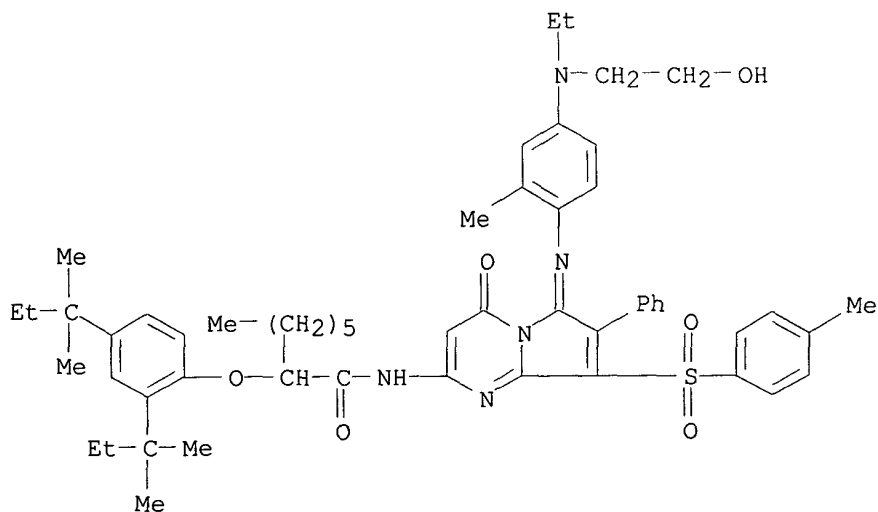
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 363159-12-0 363159-13-1 363159-14-2  
 363159-15-3 363159-16-4 363159-17-5  
 363159-18-6 363159-20-0 363159-21-1  
 363159-22-2 363159-23-3 363159-24-4  
 363159-25-5 363159-27-7

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(colored compns. contg. oil-sol. dyes, ink  
 -jet inks, and ink-jet recording)

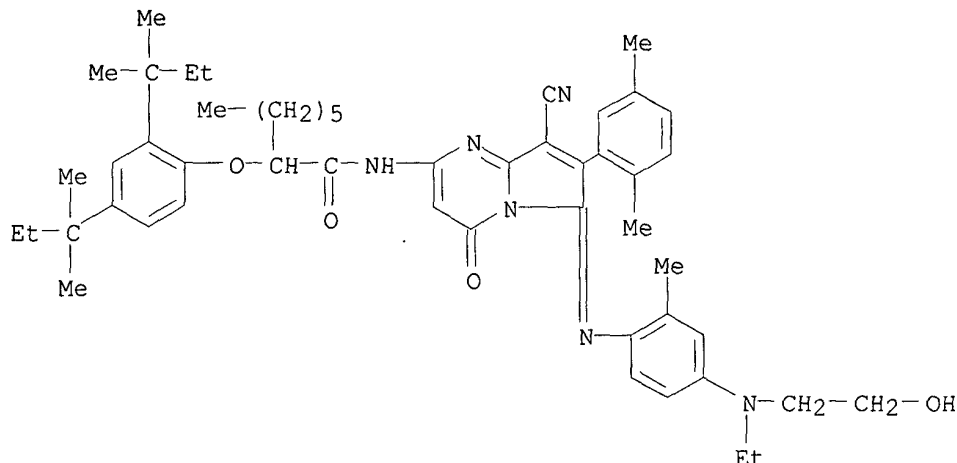
RN 347368-40-5 HCA

CN Octanamide, 2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-N-[6-[[4-[ethyl(2-hydroxyethyl)amino]-2-methylphenyl]imino]-4,6-dihydro-8-[[4-methylphenyl)sulfonyl]-4-oxo-7-phenylpyrrolo[1,2-a]pyrimidin-2-yl]- (9CI) (CA INDEX NAME)



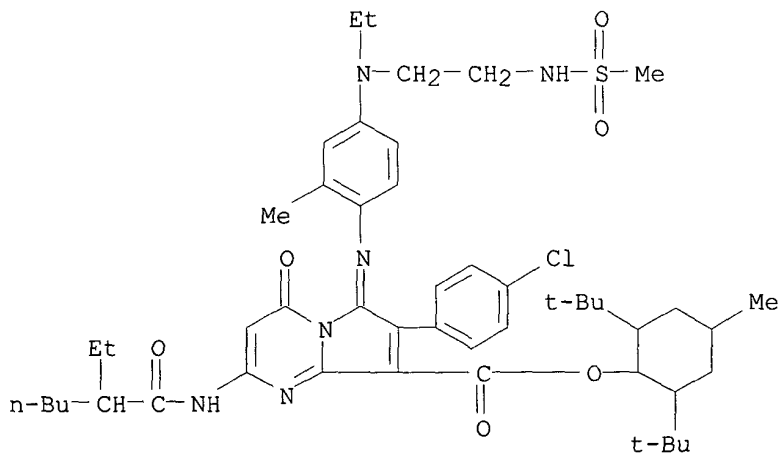
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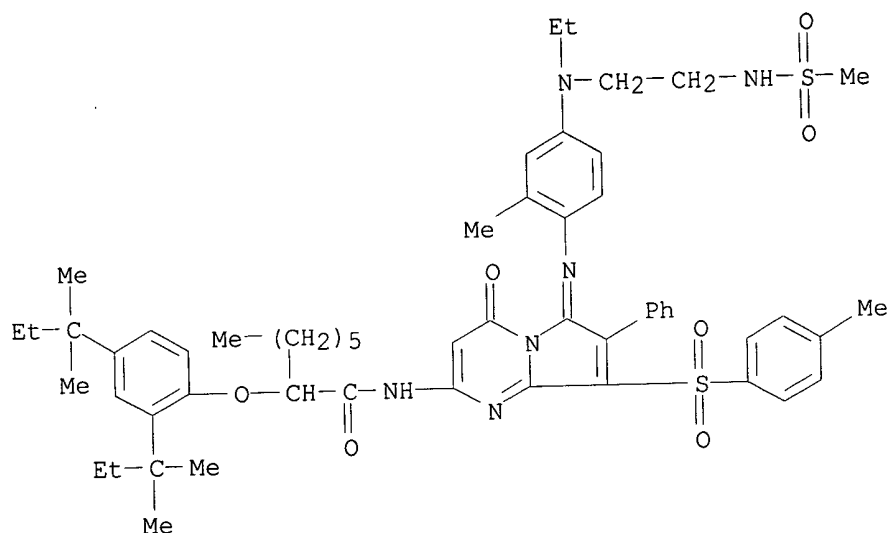
RN 347368-64-3 HCA

CN Pyrrolo[1,2-a]pyrimidine-8-carboxylic acid, 7-(4-chlorophenyl)-6-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-2-[(2-ethyl-1-oxohexyl)amino]-4,6-dihydro-4-oxo-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



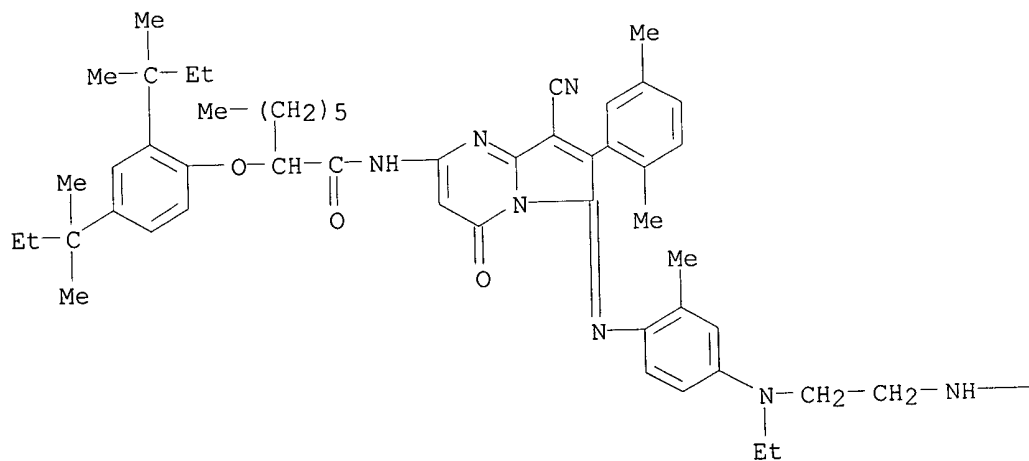
RN 347368-68-7 HCA

CN Octanamide, 2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-N-[6-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-4,6-dihydro-8-[[4-methylphenyl)sulfonyl]-4-oxo-7-phenylpyrrolo[1,2-a]pyrimidin-2-yl]- (9CI) (CA INDEX NAME)

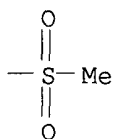


RN 347368-70-1 HCA  
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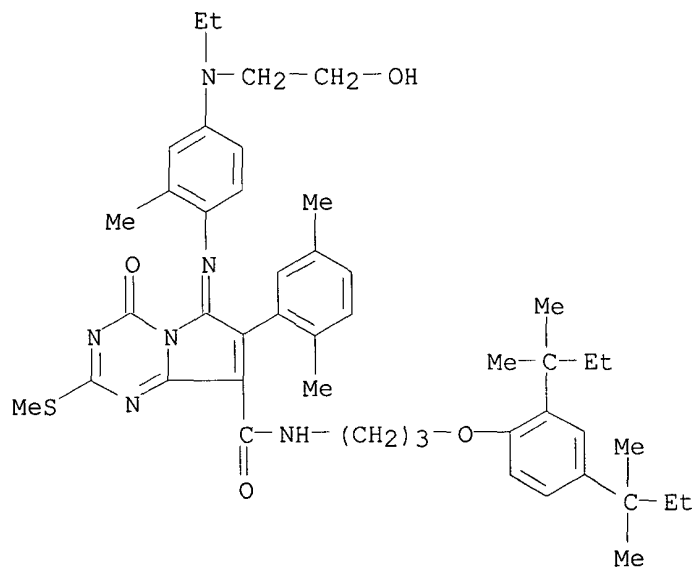
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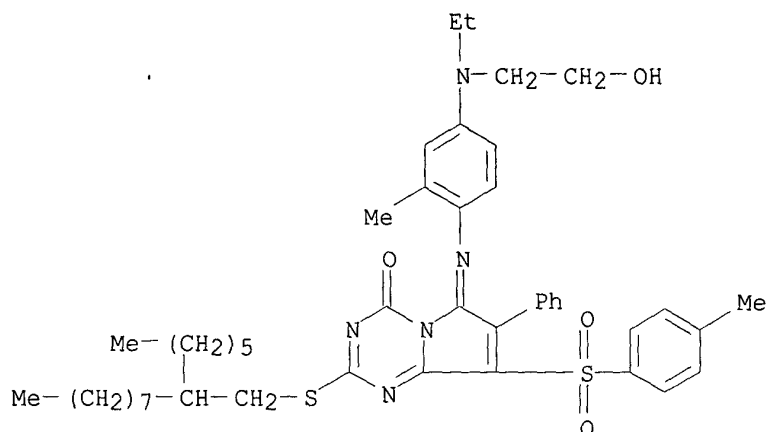
PAGE 1-B



RN 363159-05-1 HCA  
 CN Pyrrolo[1,2-a]-1,3,5-triazine-8-carboxamide, N-[3-[2,4-bis(1,1-dimethylpropyl)phenoxy]propyl]-7-(2,5-dimethylphenyl)-6-[[4-[ethyl(2-hydroxyethyl)amino]-2-methylphenyl]imino]-4,6-dihydro-2-(methylthio)-4-oxo- (9CI) (CA INDEX NAME)

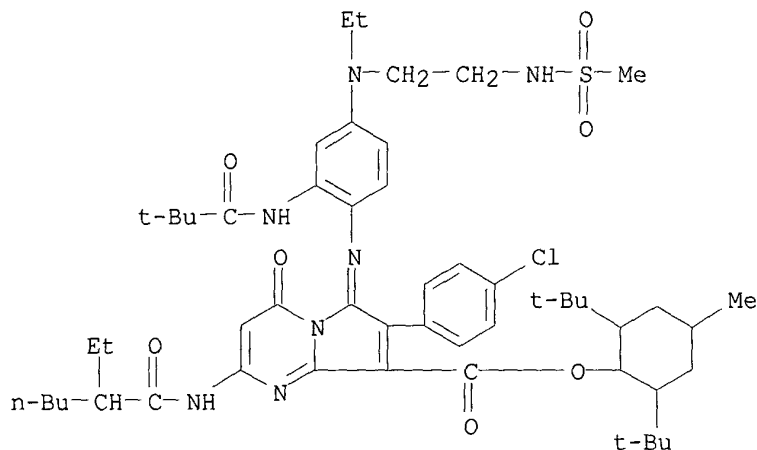


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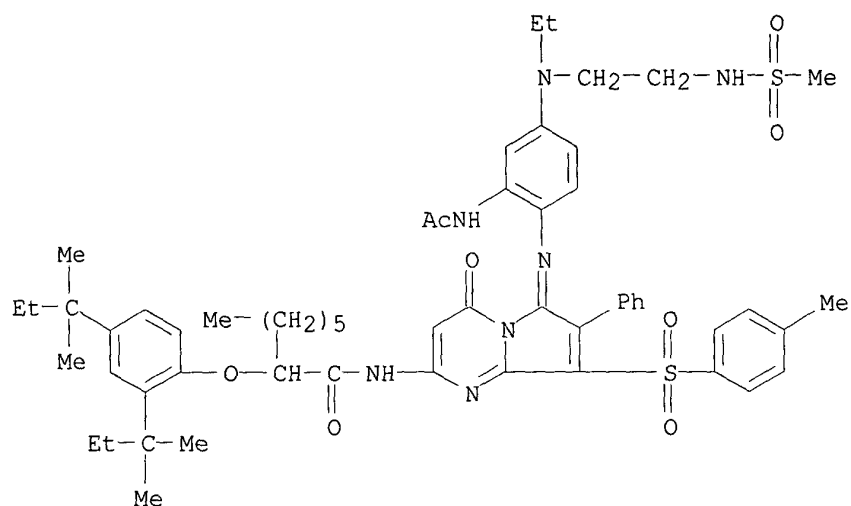
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CN Pyrrolo[1,2-a]pyrimidine-8-carboxylic acid, 7-(4-chlorophenyl)-6-[[2-[(2,2-dimethyl-1-oxopropyl)amino]-4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]phenyl]imino]-2-[(2-ethyl-1-oxohexyl)amino]-4,6-dihydro-4-oxo-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



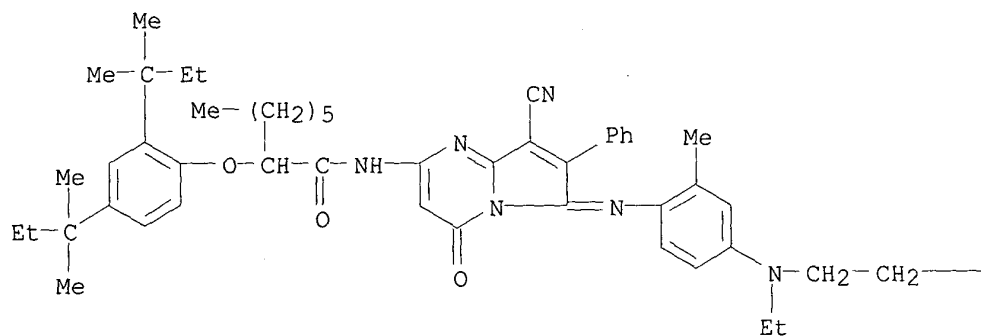
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CN Octanamide, N-[6-[[2-(acetamino)-4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]phenyl]imino]-4,6-dihydro-8-[(4-methylphenyl)sulfonyl]-4-oxo-7-phenylpyrrolo[1,2-a]pyrimidin-2-yl]-2-[2,4-bis(1,1-dimethylpropyl)phenoxy]- (9CI) (CA INDEX NAME)

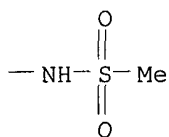


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 CN Octanamide, 2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-N-[8-cyano-6-[[4-ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-4,6-dihydro-4-oxo-7-phenylpyrrolo[1,2-a]pyrimidin-2-yl]- (9CI) (CA INDEX NAME)

PAGE 1-A

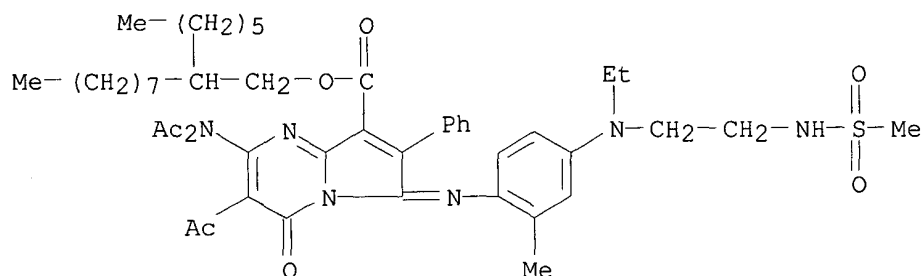


PAGE 1-B



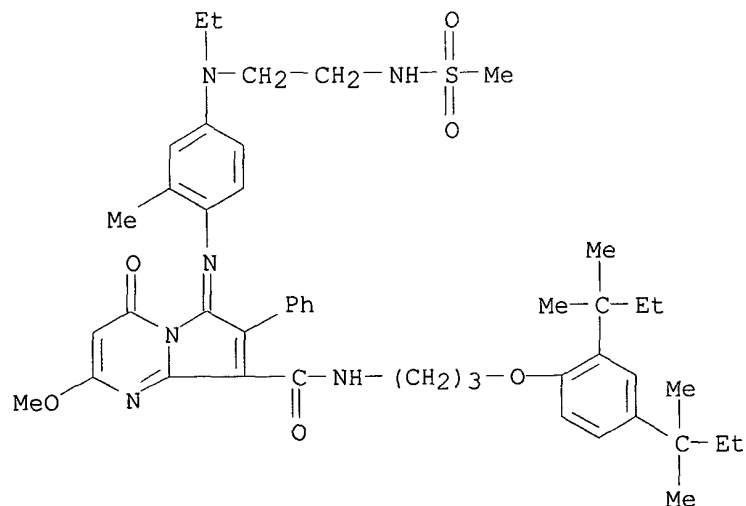
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CN Pyrrolo[1,2-a]pyrimidine-8-carboxylic acid, 3-acetyl-2-(diacetylamino)-6-  
[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-4,6-  
dihydro-4-oxo-7-phenyl-, 2-hexyldecyl ester (9CI) (CA INDEX NAME)



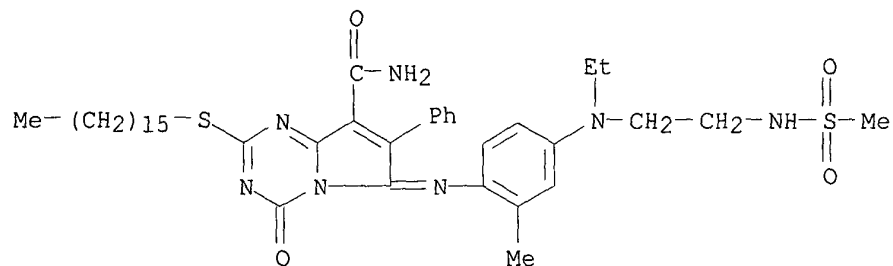
RN 363159-11-9 HCA

CN Pyrrolo[1,2-a]pyrimidine-8-carboxamide, N-[3-[2,4-bis(1,1-  
dimethylpropyl)phenoxy]propyl]-6-[[4-[ethyl[2-  
[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-4,6-dihydro-2-  
methoxy-4-oxo-7-phenyl- (9CI) (CA INDEX NAME)

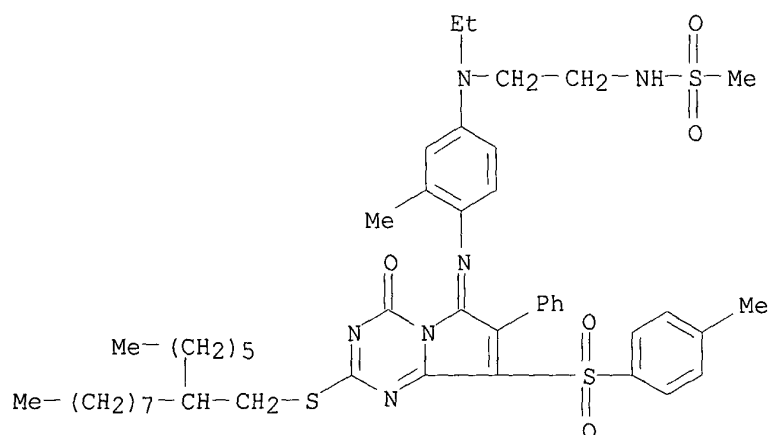




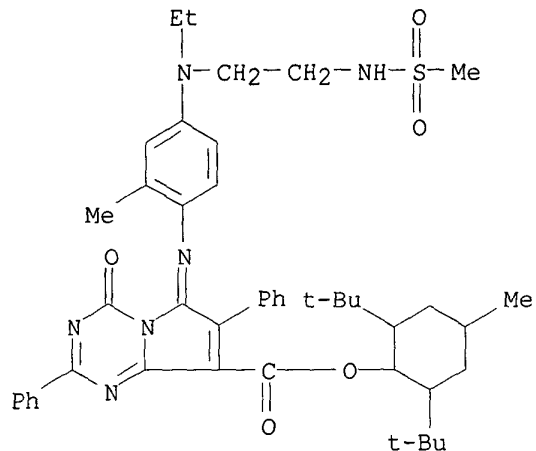
RN 363159-12-0 HCA  
 CN Pyrrolo[1,2-a]-1,3,5-triazine-8-carboxamide, 6-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-2-(hexadecylthio)-4,6-dihydro-4-oxo-7-phenyl- (9CI) (CA INDEX NAME)



RN 363159-13-1 HCA  
 CN Methanesulfonamide, N-[2-[ethyl[4-[[2-[(2-hexyldecyl)thio]-8-[(4-methylphenyl)sulfonyl]-4-oxo-7-phenylpyrrolo[1,2-a]-1,3,5-triazin-6(4H)-ylidene]amino]-3-methylphenyl]amino]ethyl]- (9CI) (CA INDEX NAME)



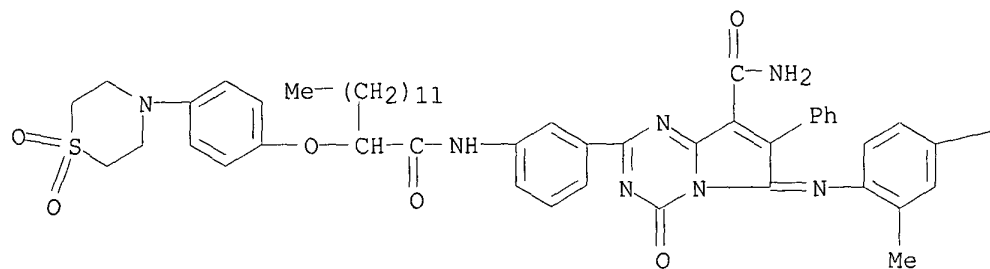
RN 363159-14-2 HCA  
 CN Pyrrolo[1,2-a]-1,3,5-triazine-8-carboxylic acid, 6-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-4,6-dihydro-4-oxo-2,7-diphenyl-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



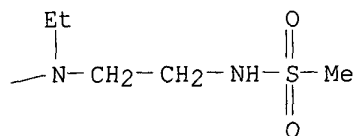
RN 363159-15-3 HCA

CN Pyrrolo[1,2-a]-1,3,5-triazine-8-carboxamide, 2-[3-[[2-[4-(1,1-dioxido-4-thiomorpholinyl)phenoxy]-1-oxotetradecyl]amino]phenyl]-6-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-4,6-dihydro-4-oxo-7-phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A

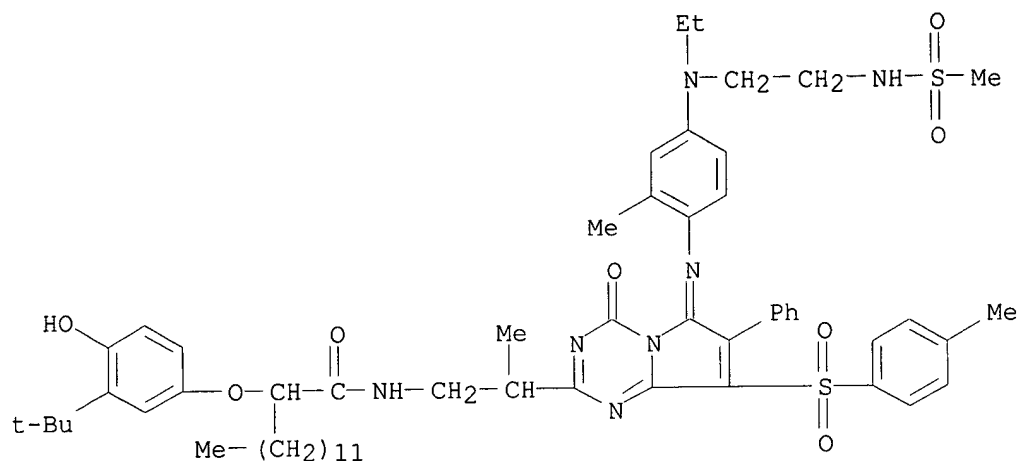


PAGE 1-B



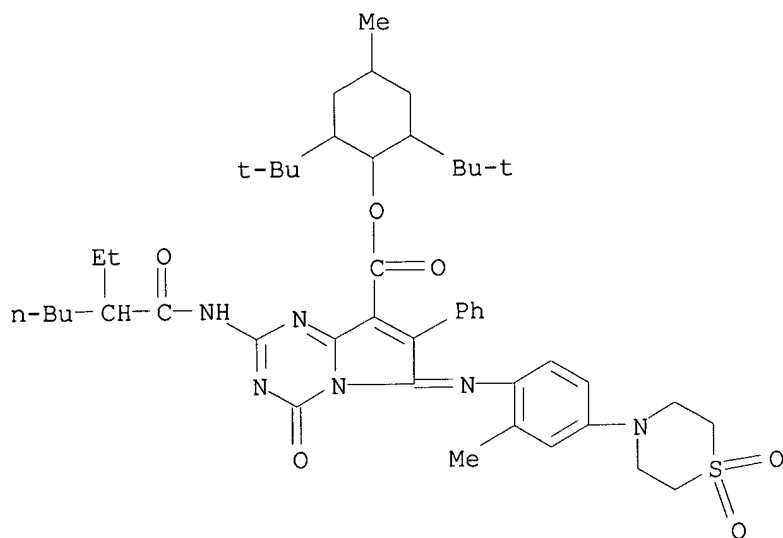
RN 363159-16-4 HCA

CN Tetradecanamide, 2-[3-(1,1-dimethylethyl)-4-hydroxyphenoxy]-N-[2-[6-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-4,6-dihydro-8-[(4-methylphenyl)sulfonyl]-4-oxo-7-phenylpyrrolo[1,2-a]-1,3,5-triazin-2-yl]propyl]- (9CI) (CA INDEX NAME)



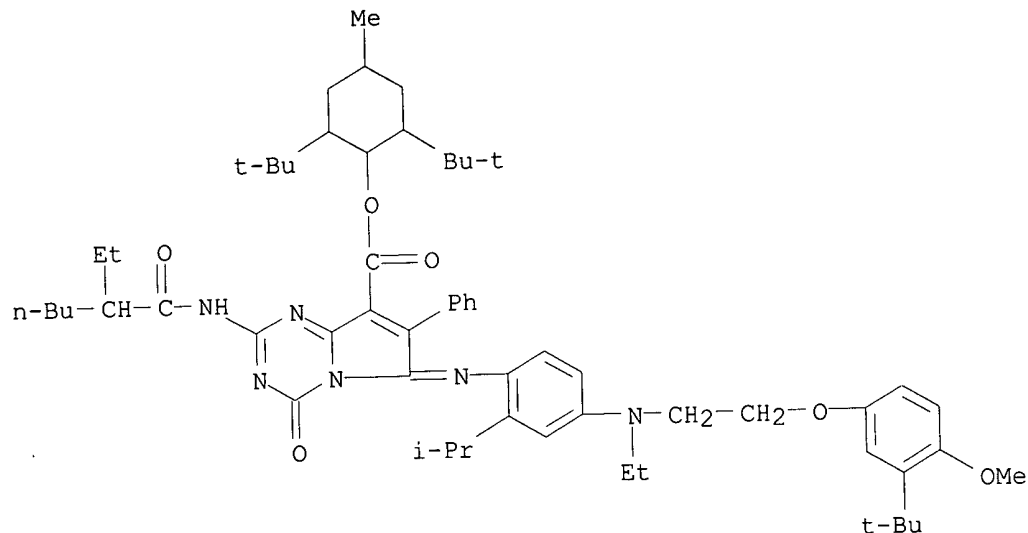
RN 363159-17-5 HCA

CN Pyrrolo[1,2-a]-1,3,5-triazine-8-carboxylic acid, 6-[[4-(1,1-dioxido-4-thiomorpholinyl)-2-methylphenyl]imino]-2-[(2-ethyl-1-oxohexyl)amino]-4,6-dihydro-4-oxo-7-phenyl-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

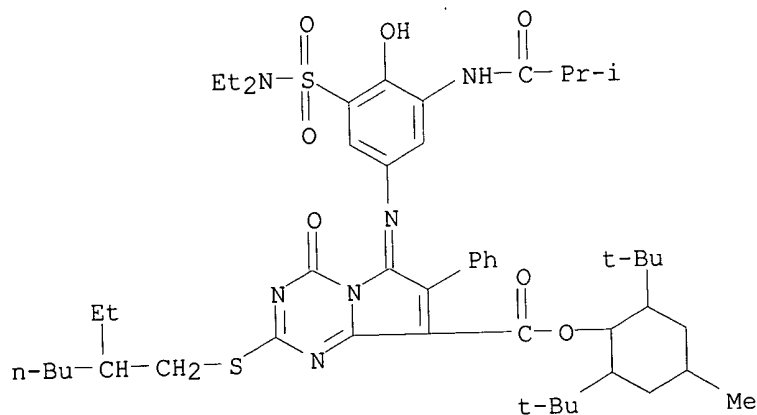


RN 363159-18-6 HCA

CN Pyrrolo[1,2-a]-1,3,5-triazine-8-carboxylic acid, 6-[[4-[[2-[3-(1,1-dimethylethyl)-4-methoxyphenoxy]ethyl]ethylamino]-2-(1-methylethyl)phenyl]imino]-2-[(2-ethyl-1-oxohexyl)amino]-4,6-dihydro-4-oxo-7-phenyl-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



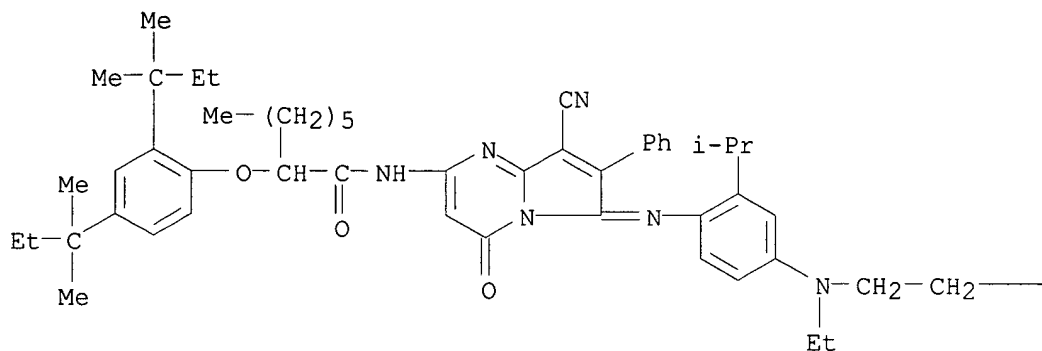
RN 363159-20-0 HCA  
 CN Pyrrolo[1,2-a]-1,3,5-triazine-8-carboxylic acid, 6-[[3-  
 [(diethylamino)sulfonyl]-4-hydroxy-5-[(2-methyl-1-  
 oxopropyl)amino]phenyl]imino]-2-[(2-ethylhexyl)thio]-4,6-dihydro-4-oxo-7-  
 phenyl-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester, monosodium  
 salt (9CI) (CA INDEX NAME)



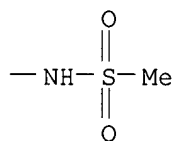
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RN 363159-21-1 HCA  
 CN Octanamide, 2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-N-[8-cyano-6-[[4-  
 [ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-(1-  
 methylethyl)phenyl]imino]-4,6-dihydro-4-oxo-7-phenylpyrrolo[1,2-  
 a]pyrimidin-2-yl]- (9CI) (CA INDEX NAME)

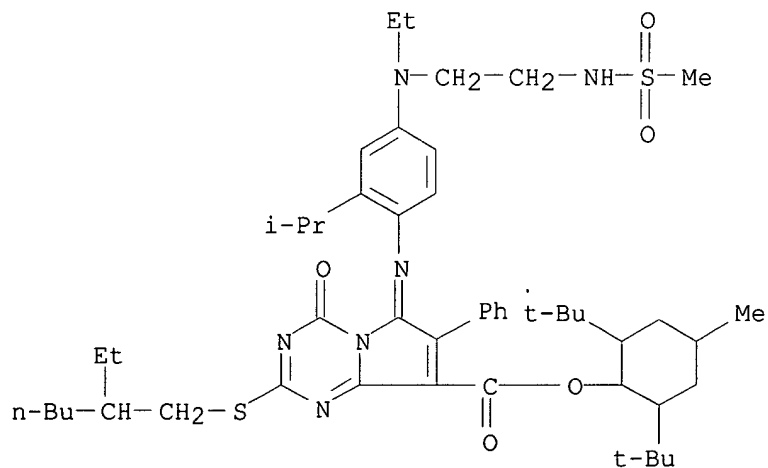
PAGE 1-A



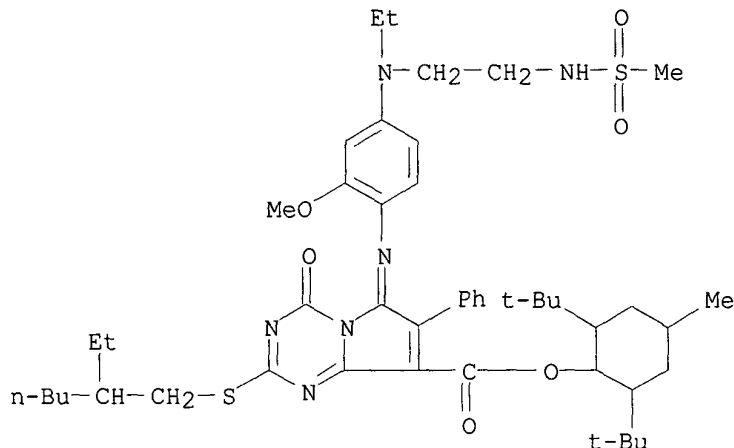
PAGE 1-B



RN 363159-22-2 HCA  
 CN Pyrrolo[1,2-a]-1,3,5-triazine-8-carboxylic acid, 2-[(2-ethylhexyl)thio]-6-  
 [[4-[ethyl[2-[(methanesulfonyl)amino]ethyl]amino]-2-(1-  
 methylethyl)phenyl]imino]-4,6-dihydro-4-oxo-7-phenyl-,  
 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

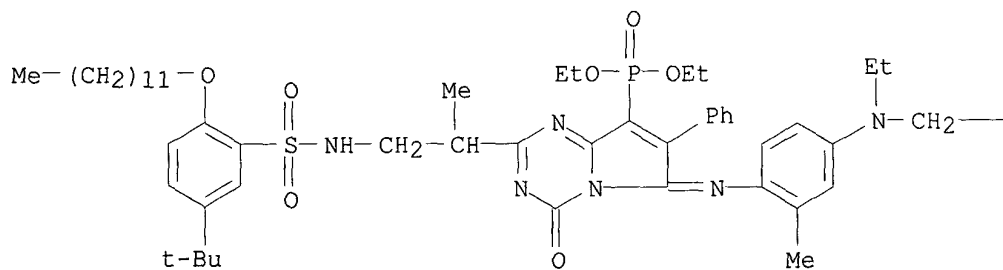


RN 363159-23-3 HCA  
 CN Pyrrolo[1,2-a]-1,3,5-triazine-8-carboxylic acid, 2-[(2-ethylhexyl)thio]-6-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methoxyphenyl]imino]-4,6-dihydro-4-oxo-7-phenyl-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

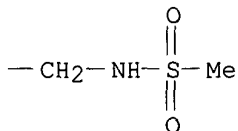


RN 363159-24-4 HCA  
 CN Phosphonic acid, [2-[2-[[[5-(1,1-dimethylethyl)-2-(dodecyloxy)phenyl]sulfonyl]amino]-1-methylethyl]-6-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-4,6-dihydro-4-oxo-7-phenylpyrrolo[1,2-a]-1,3,5-triazin-8-yl]-, diethyl ester (9CI) (CA INDEX NAME)

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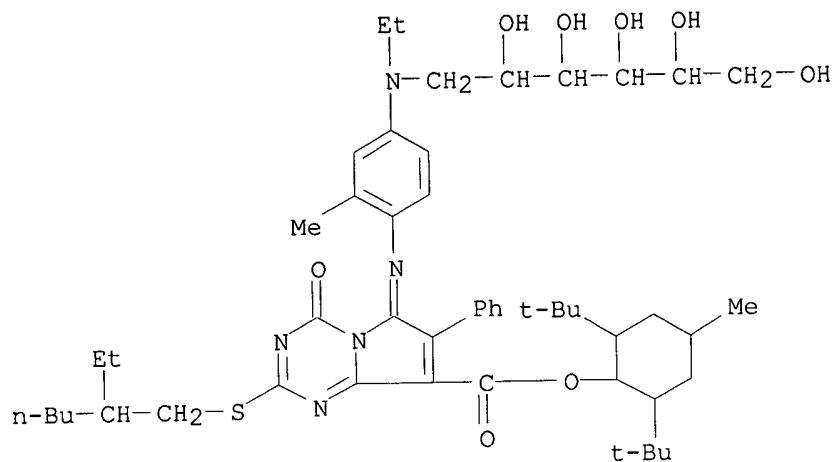


PAGE 1-B



RN 363159-25-5 HCA  
 CN Hexitol, 1-[[4-[[[8-[[[2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl]oxy]carbonyl]-2-[(2-ethylhexyl)thio]-4-oxo-7-phenylpyrrolo[1,2-a]-1,3,5-triazin-6(4H)-ylidene]amino]-3-

methylphenyl]ethylamino]-1-deoxy- (9CI) (CA INDEX NAME)



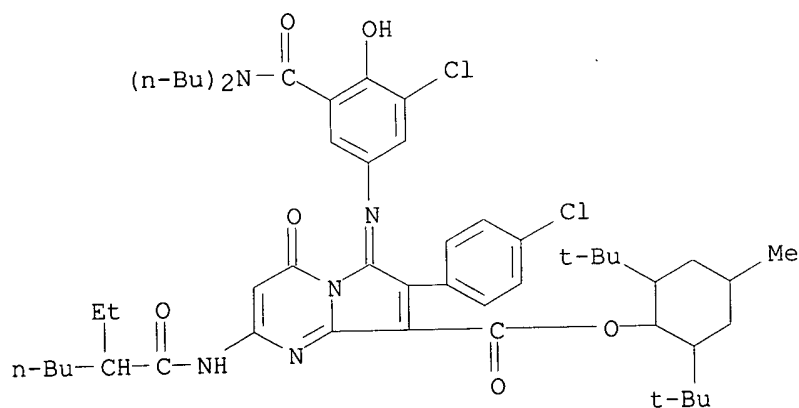
RN 363159-27-7 HCA

CN Pyrrolo[1,2-a]pyrimidine-8-carboxylic acid, 6-[[3-chloro-5-  
 [(dibutylamino) carbonyl]-4-hydroxyphenyl]imino]-7-(4-chlorophenyl)-2-[(2-  
 ethyl-1-oxohexyl)amino]-4,6-dihydro-4-oxo-, 2,6-bis(1,1-dimethylethyl)-4-  
 methylcyclohexyl ester, compd. with N,N-diethylethanamine (1:1) (9CI) (CA  
 INDEX NAME)

CM 1

CRN 363159-26-6

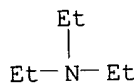
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CM 2

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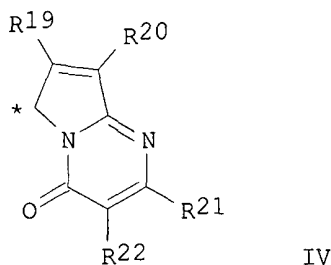
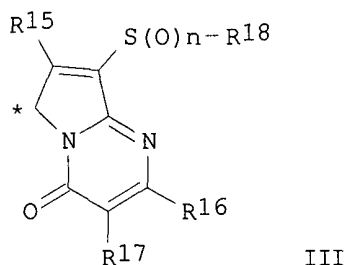
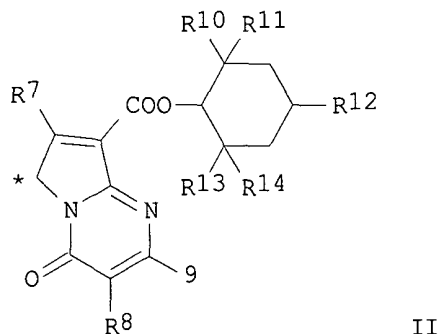
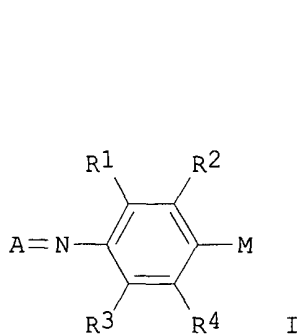
CMF C6 H15 N



L36 ANSWER 2 OF 12 HCA COPYRIGHT 2003 ACS

135:78220 Pyrrolo[1,2-a]pyrimidine azomethine **dyes**. Mizukawa, Hiroki (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2001181526 A2 20010703, 40 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-367429 19991224.

GI



AB The **dyes**, useful for **color** electrophotog., **ink-jet** or thermal **printing**, filters for solid-state images and liq. crystal displays, and Ag halide photog. materials, are shown as I (A = coupler residue II-IV; R1-R4 = H, substituent; M = OY, NR5R6; Y = H, cations for charge balance; R5, R6 = alkyl, aryl, heterocycle, acyl, sulfonyl; R1 and R2, R3 and R4, R5 and R6, R2 and R5, and/or R4 and R6 may form ring; R7-R9, R15-R17 = H, substituent; R10, R13 = alkyl; R11, R12, R14 = H, alkyl; R18 = alkyl, aryl, heterocycle, amino, anilino; n = 1, 2; R19 = aryl, arom. heterocycle; R20, R22 = H, substituent; R21 = NR23R24, alkoxy, aryloxy, heterocyclic oxy, alkylthio, arylthio, heterocyclic thio; R23, R24 = H, alkyl, aryl, acyl, alkoxy, carbonyl, carbamoyl, alkylsulfonyl, arylsulfonyl; R23 and R24 may form 5-7-membered ring; \* shows a linkage position). I (R1 = Me, R2 = R3 = R4 = H, M = NEtCH2CH2OH, A = II, R7 = 4-Cl-C6H4, R8 = C6F5CONH, R9 = R11 = R14 = H, R10 = R13 = tert-Bu, R12 = Me) showed max. absorption wavelength ( $\lambda_{max}$ ) 652.1 nm (in EtOAc) and 450 nm/ $\lambda_{max}$  = 0.076.

IC ICM C09B055-00

ICS B41M005-30; G02B005-22; G03C007-38

CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)



Section cross-reference(s): 74

ST pyrrolo pyrimidine azomethine **dye**

IT Azo **dyes**  
(pyrrolo[1,2-a]pyrimidine azomethine **dyes**)

IT **347368-38-1P 347368-40-5P 347368-42-7P 347368-46-1P**  
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(pyrrolo[1,2-a]pyrimidine azomethine **dyes**)

IT 5697-44-9P 75840-13-0P 217955-18-5P 217956-11-1P 255376-06-8P  
255376-11-5P 304865-80-3P 304865-85-8P 304865-86-9P 304865-87-0P  
313495-02-2P 313495-39-5P 313495-41-9P 313495-43-1P 347369-08-8P  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)  
(pyrrolo[1,2-a]pyrimidine azomethine **dyes**)

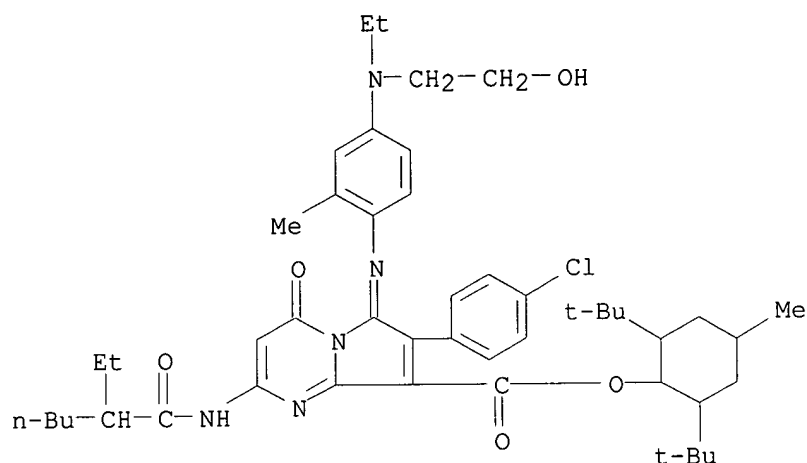
IT **347368-49-4 347368-52-9 347368-54-1 347368-56-3 347368-58-5 347368-60-9 347368-62-1 347368-64-3 347368-66-5 347368-68-7 347368-70-1 347368-72-3 347368-74-5 347368-76-7 347368-78-9 347368-80-3 347368-82-5 347368-84-7 347368-86-9 347368-88-1 347368-90-5**  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(pyrrolo[1,2-a]pyrimidine azomethine **dyes**)

IT 105-56-6, Ethyl cyanoacetate 107-14-2, Chloroacetonitrile 760-67-8, 2-Ethylhexanoyl chloride 824-79-3, Sodium p-toluenesulfinate 1074-82-4, Potassium phthalimide 2142-73-6, 2,5-Dimethylacetophenone 2318-25-4 5468-37-1, 2-Aminoacetophenone hydrochloride 18820-82-1, Pyridinium bromide 25646-77-9 78865-81-3, 2-Heptylundecanoyl chloride 82585-51-1 99346-58-4 163119-16-2, 2,6-Di-tert-butyl-4-methylcyclohexanol 347369-10-2  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(pyrrolo[1,2-a]pyrimidine azomethine **dyes**)

IT **347368-38-1P 347368-40-5P 347368-42-7P 347368-46-1P**  
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(pyrrolo[1,2-a]pyrimidine azomethine **dyes**)

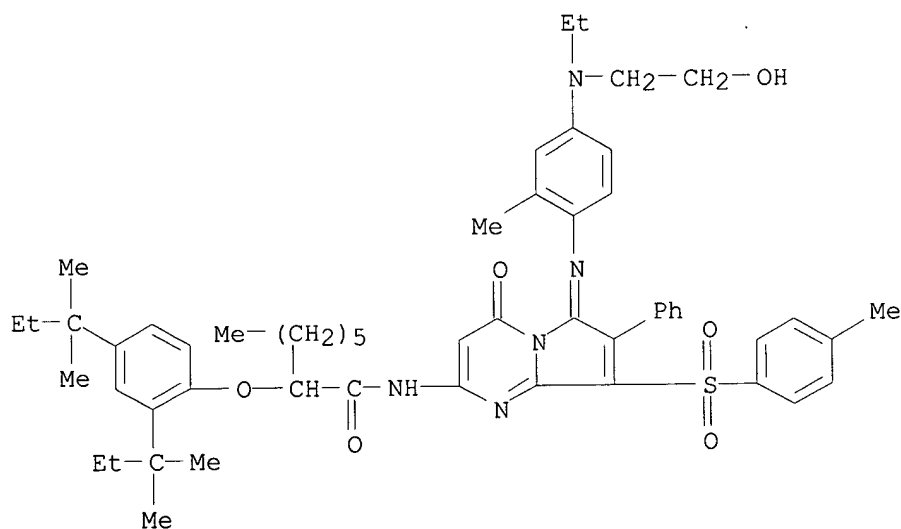
RN 347368-38-1 HCA

CN Pyrrolo[1,2-a]pyrimidine-8-carboxylic acid, 7-(4-chlorophenyl)-6-[[4-ethyl(2-hydroxyethyl)amino]-2-methylphenyl]imino]-2-[(2-ethyl-1-oxohexyl)amino]-4,6-dihydro-4-oxo-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



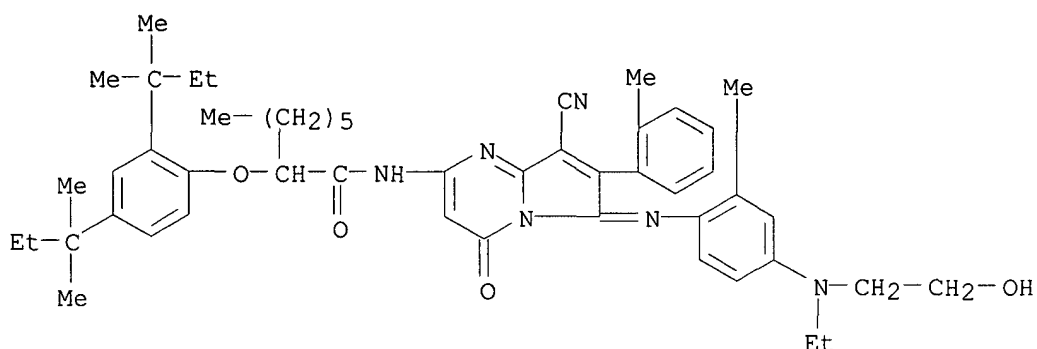
RN 347368-40-5 HCA

CN Octanamide, 2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-N-[6-[[4-[ethyl(2-hydroxyethyl)amino]-2-methylphenyl]imino]-4,6-dihydro-8-[(4-methylphenyl)sulfonyl]-4-oxo-7-phenylpyrrolo[1,2-a]pyrimidin-2-yl]- (9CI)  
(CA INDEX NAME)

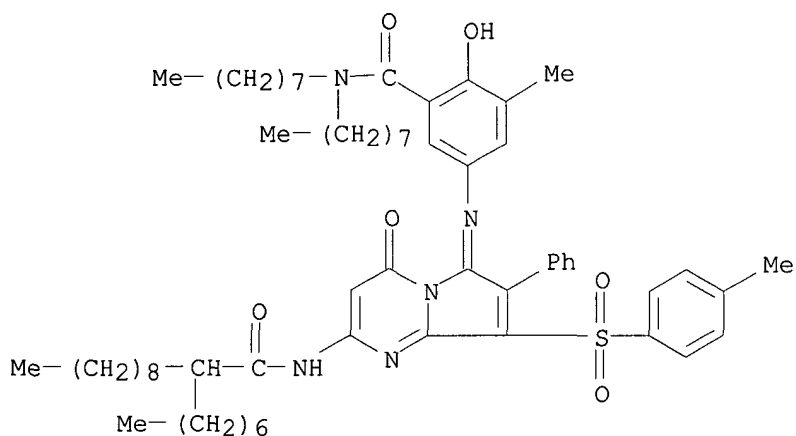


RN 347368-42-7 HCA

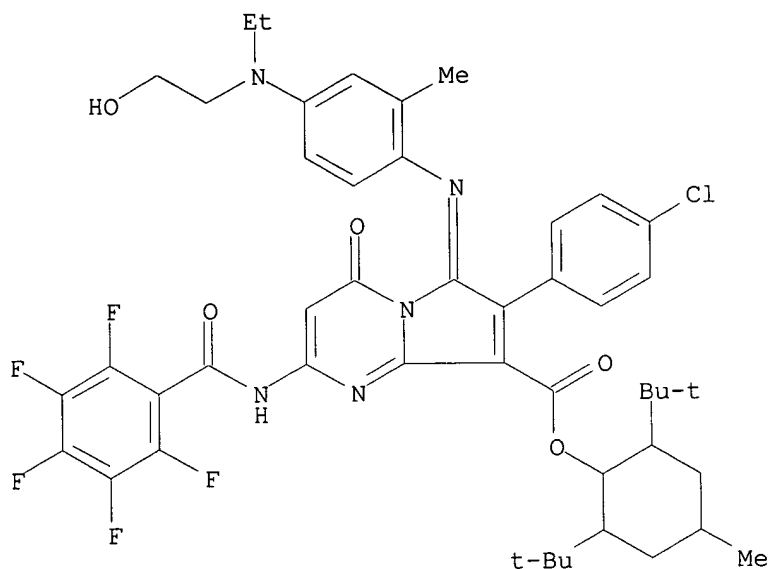
CN Octanamide, 2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-N-[8-cyano-6-[[4-[ethyl(2-hydroxyethyl)amino]-2-methylphenyl]imino]-4,6-dihydro-7-(2-methylphenyl)-4-oxopyrrolo[1,2-a]pyrimidin-2-yl]- (9CI) (CA INDEX NAME)



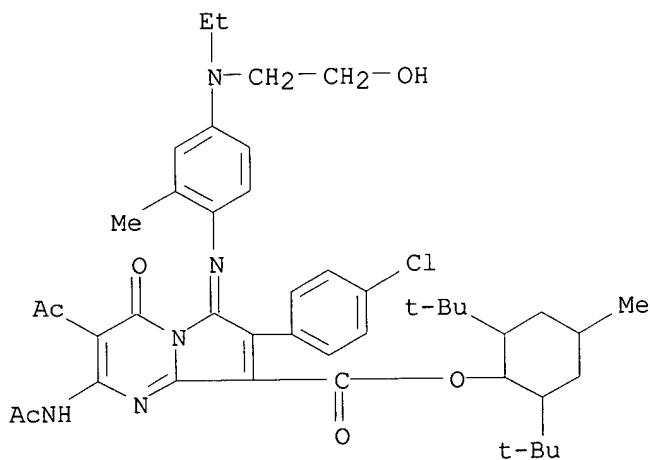
RN 347368-46-1 HCA  
 CN Benzamide, 5-[[2-[(2-heptyl-1-oxoundecyl)amino]-8-[(4-methylphenyl)sulfonyl]-4-oxo-7-phenylpyrrolo[1,2-a]pyrimidin-6(4H)-ylidene]amino]-2-hydroxy-3-methyl-N,N-dioctyl- (9CI) (CA INDEX NAME)



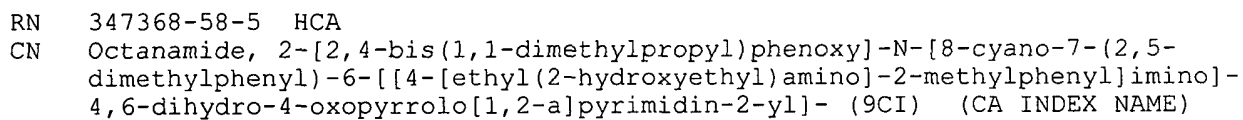
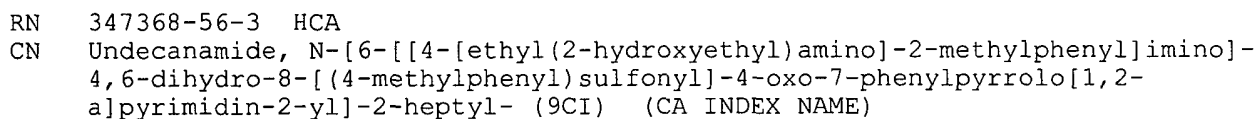
IT 347368-49-4 347368-52-9 347368-54-1  
 347368-56-3 347368-58-5 347368-60-9  
 347368-62-1 347368-64-3 347368-66-5  
 347368-68-7 347368-70-1 347368-72-3  
 347368-74-5 347368-76-7 347368-80-3  
 347368-82-5 347368-86-9 347368-88-1  
 RL: PRP (Properties); TEM (Technical or engineered material use); USES  
 (Uses)  
 (pyrrolo[1,2-a]pyrimidine azomethine **dyes**)  
 RN 347368-49-4 HCA  
 CN Pyrrolo[1,2-a]pyrimidine-8-carboxylic acid, 7-(4-chlorophenyl)-6-[[4-ethyl(2-hydroxyethyl)amino]-2-methylphenyl]imino]-4,6-dihydro-4-oxo-2-[(pentafluorobenzoyl)amino]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

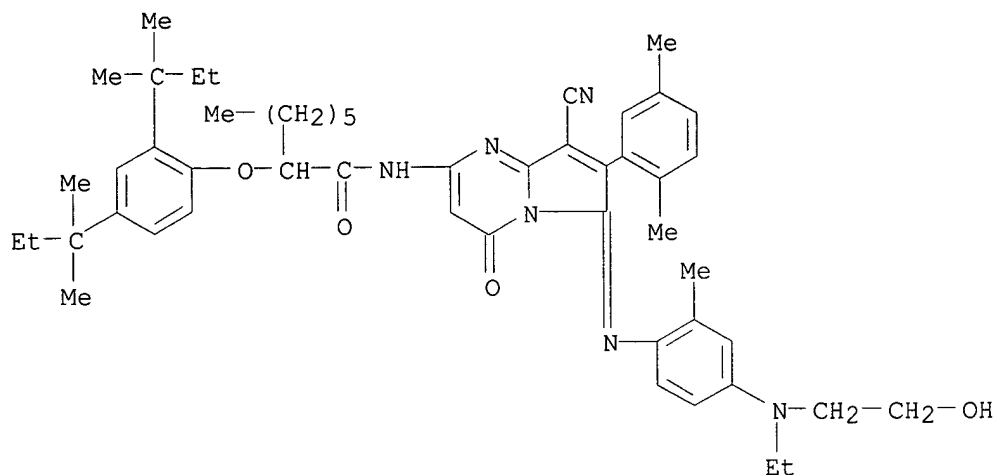


RN 347368-52-9 HCA  
 CN Pyrrolo[1,2-a]pyrimidine-8-carboxylic acid, 3-acetyl-2-(acetylamino)-7-(4-chlorophenyl)-6-[[4-[ethyl(2-hydroxyethyl)amino]-2-methylphenyl]imino]-4,6-dihydro-4-oxo-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI)  
 (CA INDEX NAME)



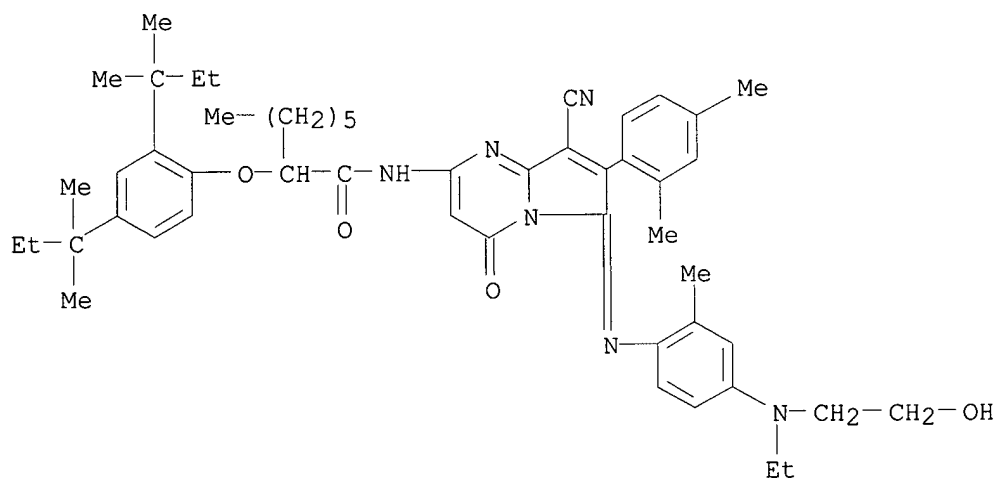
RN 347368-54-1 HCA  
 CN Pyrrolo[1,2-a]pyrimidine-8-carboxylic acid, 3-chloro-6-[[4-[ethyl(2-hydroxyethyl)amino]-2-methylphenyl]imino]-2-[(2-ethyl-1-oxohexyl)amino]-4,6-dihydro-4-oxo-7-phenyl-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)





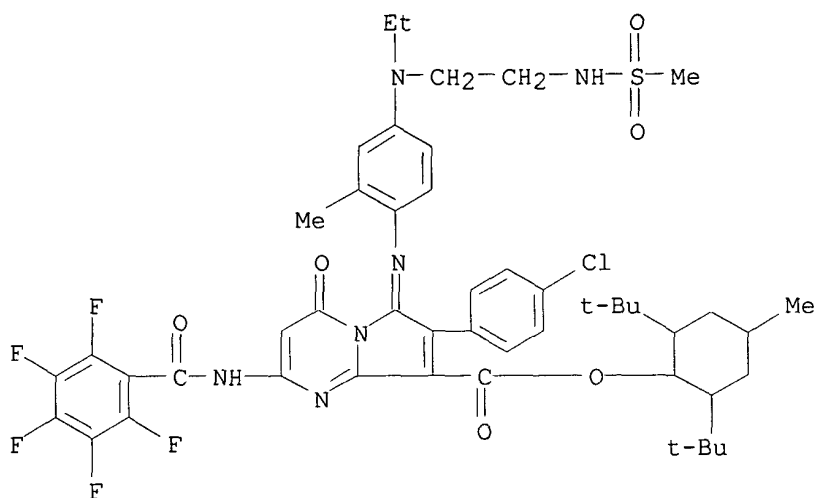
RN 347368-60-9 HCA

CN Octanamide, 2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-N-[8-cyano-7-(2,4-dimethylphenyl)-6-[[4-[ethyl(2-hydroxyethyl)amino]-2-methylphenyl]imino]-4,6-dihydro-4-oxopyrrolo[1,2-a]pyrimidin-2-yl]- (9CI) (CA INDEX NAME)



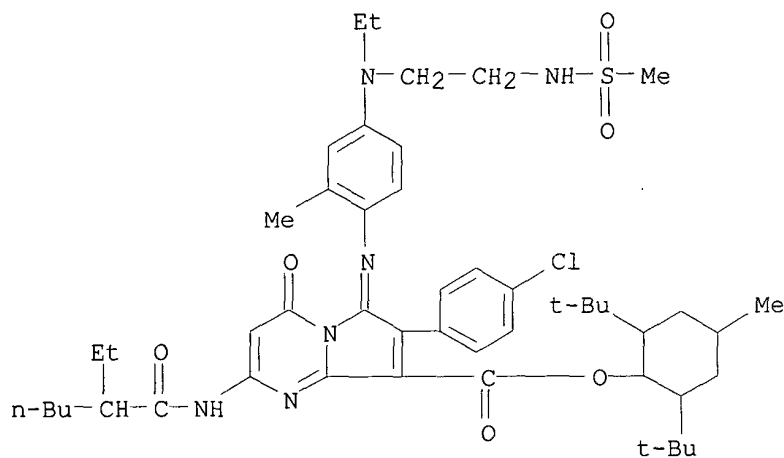
RN 347368-62-1 HCA

CN Pyrrolo[1,2-a]pyrimidine-8-carboxylic acid, 7-(4-chlorophenyl)-6-[[4-[ethyl(2-hydroxyethyl)amino]-2-methylphenyl]imino]-4,6-dihydro-4-oxo-2-[(pentafluorobenzoyl)amino]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



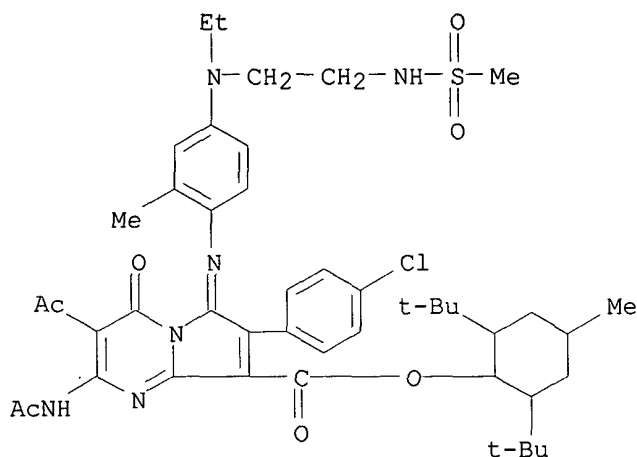
RN 347368-64-3 HCA

CN Pyrrolo[1,2-a]pyrimidine-8-carboxylic acid, 7-(4-chlorophenyl)-6-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-2-[(2-ethyl-1-oxohexyl)amino]-4,6-dihydro-4-oxo-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



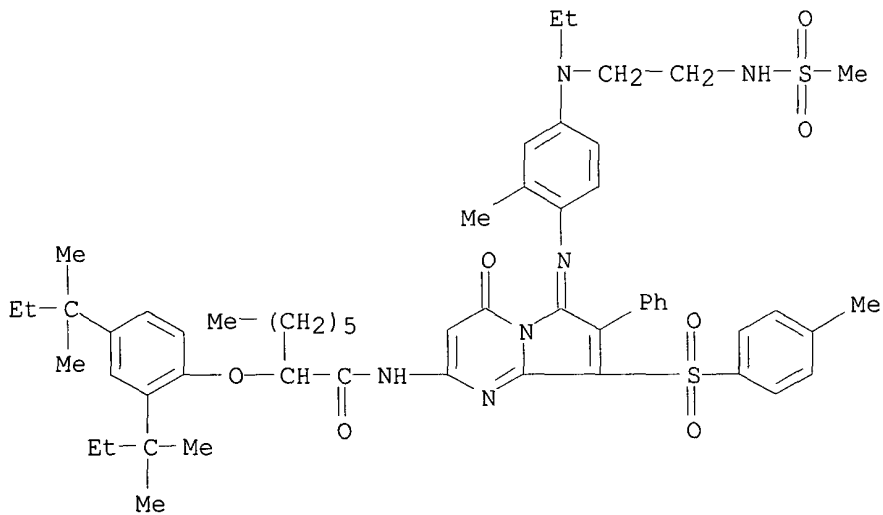
RN 347368-66-5 HCA

CN Pyrrolo[1,2-a]pyrimidine-8-carboxylic acid, 3-acetyl-2-(acetylamino)-7-(4-chlorophenyl)-6-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-4,6-dihydro-4-oxo-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



RN 347368-68-7 HCA

CN Octanamide, 2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-N-[6-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-4,6-dihydro-8-[(4-methylphenyl)sulfonyl]-4-oxo-7-phenylpyrrolo[1,2-a]pyrimidin-2-yl]- (9CI) (CA INDEX NAME)

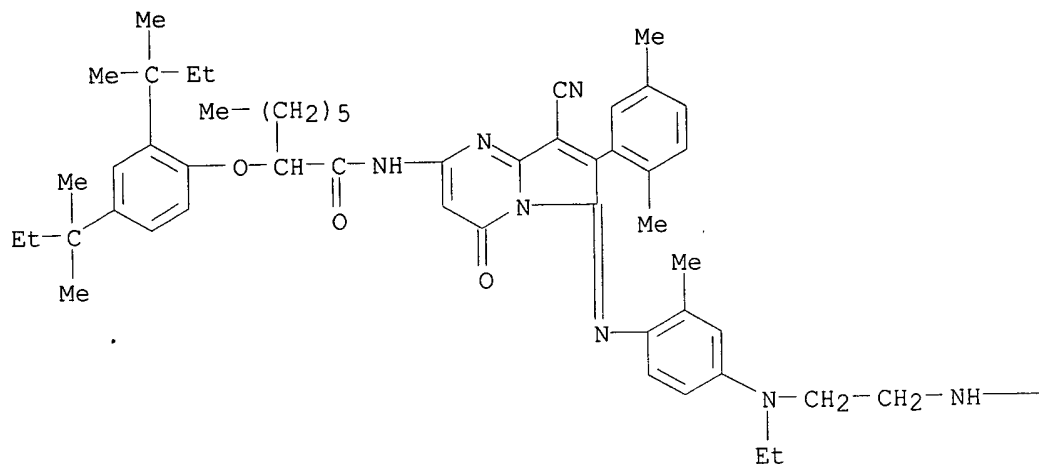


RN 347368-70-1 HCA

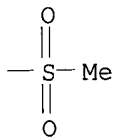
CN Octanamide, 2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-N-[8-cyano-7-(2,5-dimethylphenyl)-6-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-4,6-dihydro-4-oxopyrrolo[1,2-a]pyrimidin-2-yl]- (9CI) (CA INDEX NAME)



PAGE 1-A



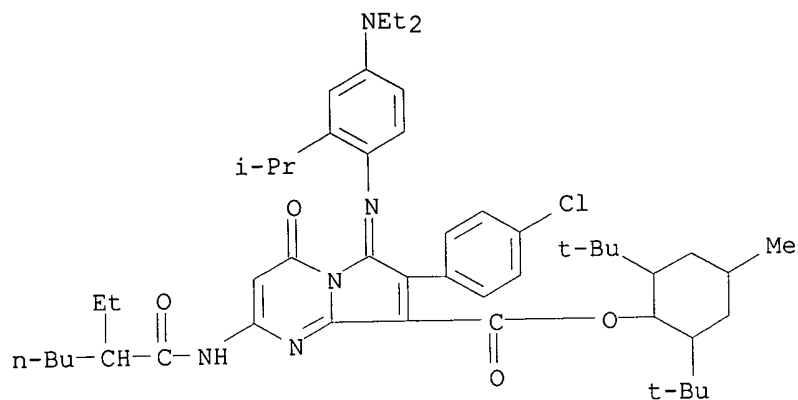
PAGE 1-B



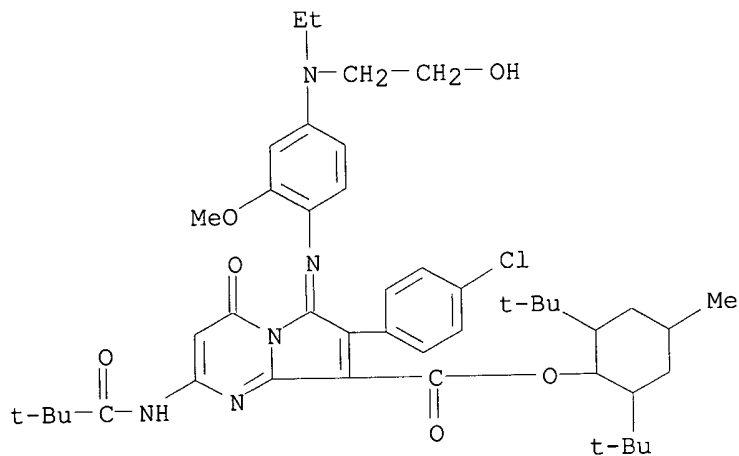
RN 347368-72-3 HCA  
 CN Octanamide, 2-[2,4-bis(1,1-dimethylpropyl)phenoxy]-N-[8-cyano-7-(2,4-dimethylphenyl)-6-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-4,6-dihydro-4-oxopyrrolo[1,2-a]pyrimidin-2-yl]- (9CI)  
 (CA INDEX NAME)

CC(C)(C)c1ccc(OC(=O)CNC2=CC(=O)N=C3C(=C2)C(=CN3)C4=CC(=C(C)C)C(=C4)C5=CC(=CC=C5)N(CC)CC)cc1C(C)C
$$\begin{array}{c} \text{O} \\ || \\ -\text{S}-\text{Me} \\ || \\ \text{O} \end{array}$$

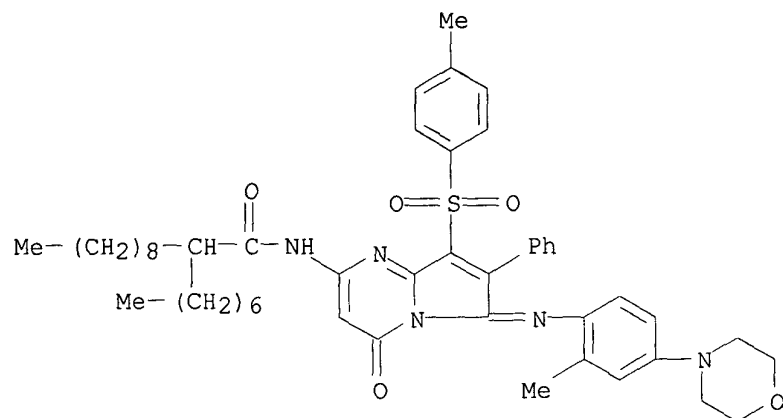
RN	347368-74-5	HCA
CN	Pyrrolo[1,2-a]pyrimidine-8-carboxylic acid, 7-(4-chlorophenyl)-6-[[4-(diethylamino)-2-(1-methylethyl)phenyl]imino]-2-[(2-ethyl-1-oxohexyl)amino]-4,6-dihydro-4-oxo-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)	



RN 347368-76-7 HCA  
 CN Pyrrolo[1,2-a]pyrimidine-8-carboxylic acid, 7-(4-chlorophenyl)-2-[(2,2-dimethyl-1-oxopropyl)amino]-6-[[4-[ethyl(2-hydroxyethyl)amino]-2-methoxyphenyl]imino]-4,6-dihydro-4-oxo-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

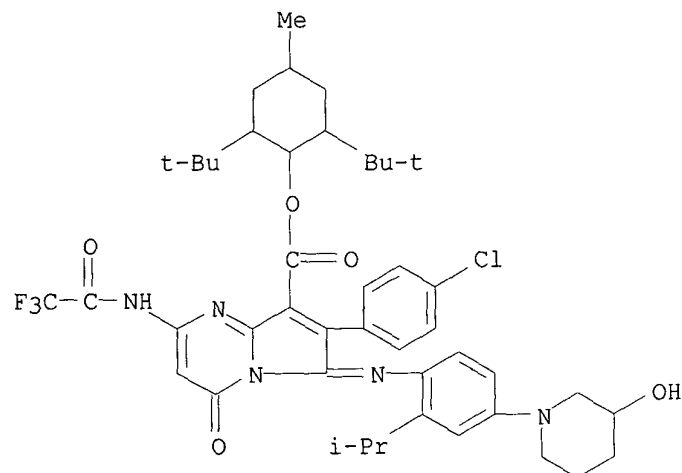


RN 347368-80-3 HCA  
 CN Undecanamide, N-[4,6-dihydro-6-[[2-methyl-4-(4-morpholinyl)phenyl]imino]-8-[(4-methylphenyl)sulfonyl]-4-oxo-7-phenylpyrrolo[1,2-a]pyrimidin-2-yl]-2-heptyl- (9CI) (CA INDEX NAME)



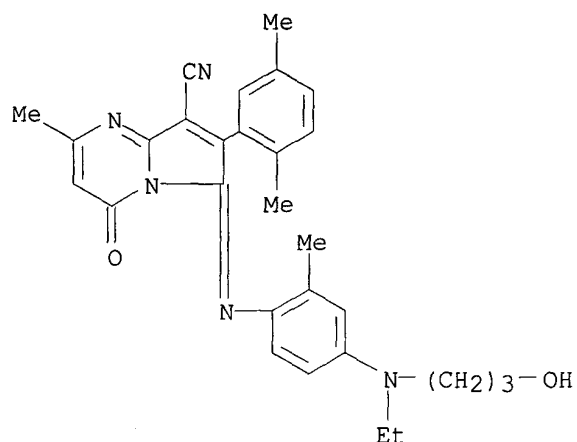
RN 347368-82-5 HCA

CN Pyrrolo[1,2-a]pyrimidine-8-carboxylic acid, 7-(4-chlorophenyl)-4,6-dihydro-6-[[4-(3-hydroxy-1-piperidiny1)-2-(1-methylethyl)phenyl]imino]-4-oxo-2-[(trifluoroacetyl)amino]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



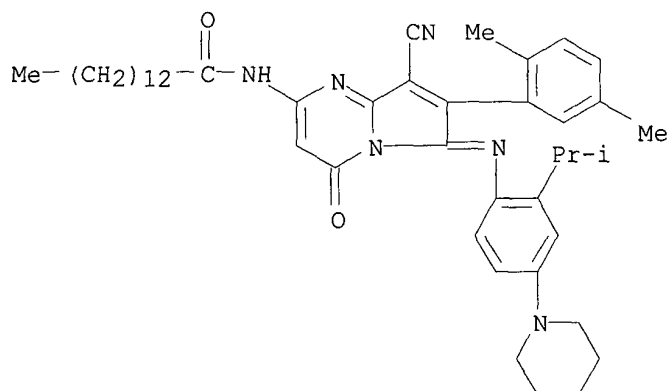
RN 347368-86-9 HCA

CN Pyrrolo[1,2-a]pyrimidine-8-carbonitrile, 7-(2,5-dimethylphenyl)-6-[[4-ethyl(3-hydroxypropyl)amino]-2-methylphenyl]imino]-4,6-dihydro-2-methyl-4-oxo- (9CI) (CA INDEX NAME)



RN 347368-88-1 HCA

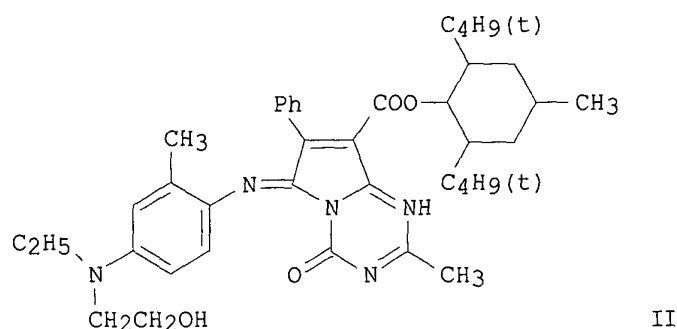
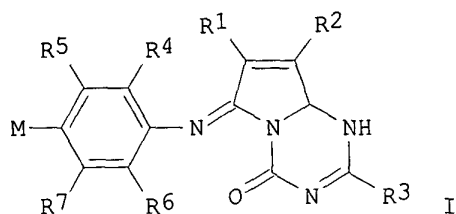
CN Tetradecanamide, N-[8-cyano-7-(2,5-dimethylphenyl)-4,6-dihydro-6-[[2-(1-methylethyl)-4-(1-piperidinyl)phenyl]imino]-4-oxopyrrolo[1,2-a]pyrimidin-2-yl]- (9CI) (CA INDEX NAME)



L36 ANSWER 3 OF 12 HCA COPYRIGHT 2003 ACS

134:18552 Pyrrolo[1,2-a]-1,3,5-triazin-4-one-based azomethine **dyes** with good absorption properties. Mizukawa, Hiroki; Kawagishi, Toshio (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2000327939 A2 20001128, 27 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-142259 19990521.

GI



- AB The **dyes**, useful for **color** electrophotog., **ink**  
**-jet printing**, heat-sensitive image forming systems,  
etc., comprise I [R1 = H, substituent (except CN); R2 = alkyl, aryl,  
heterocyclic group, etc.; R3-R7 = H, substituent; M = OY, NR8R9; Y = H,  
cation; R8, R9 = alkyl, aryl, heterocyclic group, acyl, sulfonyl]. Et  
acetate soln. of II (manufd. from substituted pyrrolo[1,2-a]-1,3,5-triazin-  
4-one and p-phenylenediamine compd.) showed max. absorption wavelength  
664.7 nm and ratio of absorption at 450 nm and 664.7 nm 0.025.
- IC ICM C09B055-00
- CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic  
Sensitizers)  
Section cross-reference(s): 28, 42, 74
- ST pyrrolo[1,2-a]-1,3,5-triazin-4-one-based azomethine **dye** **color** electrophotog;  
image forming system pyrrolo[1,2-a]-1,3,5-triazin-4-one-based azomethine **dye**;  
**ink jet printing** pyrrolo[1,2-a]-1,3,5-triazin-4-one-based azomethine  
**dye**
- IT Azo **dyes**  
Electrophotographic toners  
**Ink-jet printing**  
(pyrrolo[1,2-a]-1,3,5-triazin-4-one-based azomethine **dyes**)
- IT 308810-73-3P 308810-74-4P 308810-83-5P 308810-84-6P  
RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT  
(Reactant or reagent)  
(in manuf. of pyrrolo[1,2-a]-1,3,5-triazin-4-one-based azomethine  
**dyes**)
- IT 14777-27-6 16182-04-0 18908-66-2 25646-77-9 127951-76-2  
217955-03-8 243843-57-4  
RL: RCT (Reactant); RACT (Reactant or reagent)  
(in manuf. of pyrrolo[1,2-a]-1,3,5-triazin-4-one-based azomethine  
**dyes**)
- IT 309934-08-5P  
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or  
engineered material use); PREP (Preparation); USES (Uses)  
(pyrrolo[1,2-a]-1,3,5-triazin-4-one-based azomethine **dyes**)
- IT 309934-06-3P 309934-07-4P

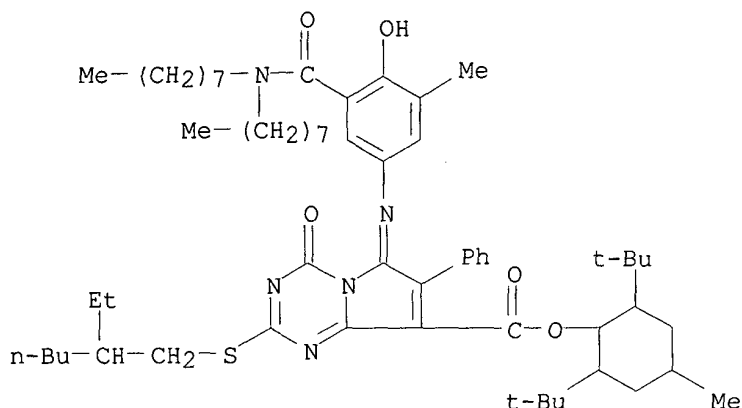
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (pyrrolo[1,2-a]-1,3,5-triazin-4-one-based azomethine **dyes** with)

## IT 309934-08-5P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (pyrrolo[1,2-a]-1,3,5-triazin-4-one-based azomethine **dyes**)

RN 309934-08-5 HCA

CN Pyrrolo[1,2-a]-1,3,5-triazine-8-carboxylic acid, 6-[[3-[(diethylamino)carbonyl]-4-hydroxy-5-methylphenyl]imino]-2-[(2-ethylhexyl)thio]-4,6-dihydro-4-oxo-7-phenyl-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

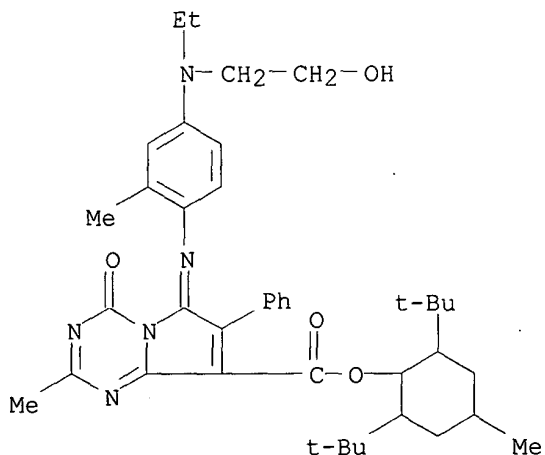


## IT 309934-06-3P 309934-07-4P

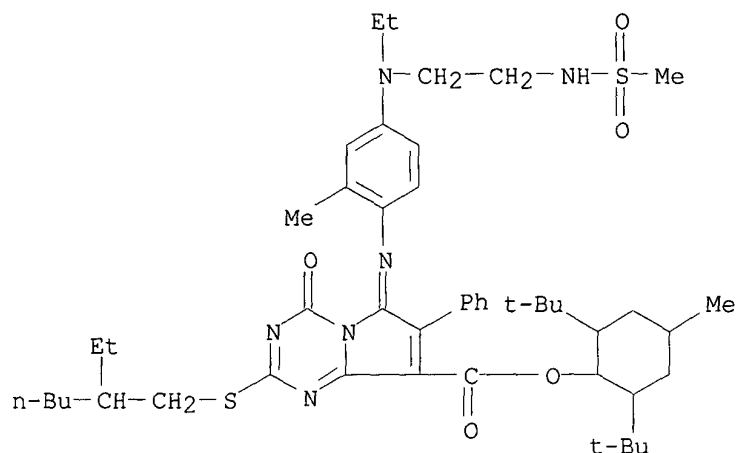
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
 (pyrrolo[1,2-a]-1,3,5-triazin-4-one-based azomethine **dyes** with)

RN 309934-06-3 HCA

CN Pyrrolo[1,2-a]-1,3,5-triazine-8-carboxylic acid, 6-[[4-[ethyl(2-hydroxyethyl)amino]-2-methylphenyl]imino]-4,6-dihydro-2-methyl-4-oxo-7-phenyl-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

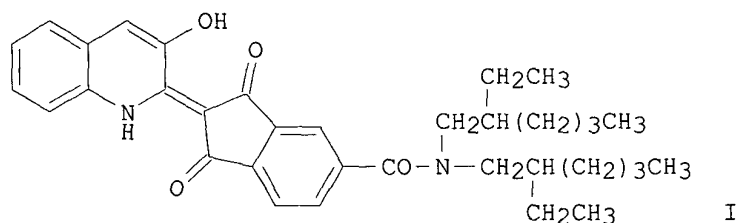


RN 309934-07-4 HCA  
 CN Pyrrolo[1,2-a]-1,3,5-triazine-8-carboxylic acid, 2-[(2-ethylhexyl)thio]-6-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-4,6-dihydro-4-oxo-7-phenyl-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)



L36 ANSWER 4 OF 12 HCA COPYRIGHT 2003 ACS  
 133:323119 Water-thinned inks for **ink jet printing**  
 with good water and light resistance and storage stability. Ohi, Toru;  
 Matsuzaki, Yoriaki; Ohkuma, Tadashi; Kogo, Osamu (Mitsui Chemical Industry  
 Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2000297234 A2 20001024, 13  
 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-105389 19990413.

GI



AB The inks contain polymer dispersions and oil-sol. **dyes** with  
 .ltoreq.1% water soly. and .gtoreq.10% PhMe soly. Thus, a 15%  
 water-thinned yellow ink contg. di-Me 5-sodiosulfoisophthalate-di-Me  
 terephthalate-ethylene glycol-tricyclodecanedimethanol copolymer  
 dispersion (av. diam. 0.1 .mu.m) **colored** with oil-sol. yellow  
**dye I** (PhMe soly. 35%) showed no clogging after staying at  
 40.degree. for 2 mo. and gave a **printed** image with water and  
 light resistance and no feathering.  
 IC ICM C09D011-00  
 ICS B41J002-01; B41M005-00  
 CC 42-12 (Coatings, Inks, and Related Products)  
 ST water thinned jet **printing** ink polymer; oil soluble **dye**  
 polymer dispersion ink; sodiosulfoisophthalate terephthalate ethylene  
 cyclodecanedimethanol copolyester dispersion ink; feathering water light



resistance polyester dispersion ink

IT Light-resistant materials  
Light-resistant materials  
(inks; water-thinned jet-**printing** inks with good water and light resistance and storage stability)

IT Water-resistant materials  
(jet-**printing** inks; water-thinned jet-**printing** inks with good water and light resistance and storage stability)

IT **Inks**  
(jet-**printing**, anticlogging, storage-stable; water-thinned jet-**printing** inks with good water and light resistance and storage stability)

IT **Inks**  
**Inks**  
(jet-**printing**, water-resistant; water-thinned jet-**printing** inks with good water and light resistance and storage stability)

IT **Inks**  
(jet-**printing**, water-thinned; water-thinned jet-**printing** inks with good water and light resistance and storage stability)

IT **Inks**  
**Inks**  
(light-resistant; water-thinned jet-**printing** inks with good water and light resistance and storage stability)

IT **Dyes**  
(oil-sol.; water-thinned jet-**printing** inks with good water and light resistance and storage stability)

IT Polyesters, uses  
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(water-thinned jet-**printing** inks with good water and light resistance and storage stability)

IT Polymers, uses  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(water-thinned jet-**printing** inks with good water and light resistance and storage stability)

IT 119401-54-6 142358-19-8 159880-81-6 264602-09-7 271246-37-8  
303022-08-4 303022-10-8 303022-12-0 **303022-13-1**  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(oil-sol. **dye**; water-thinned jet-**printing** inks with good water and light resistance and storage stability)

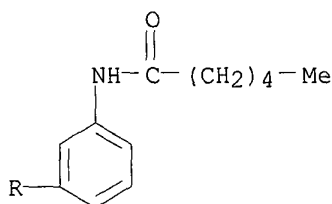
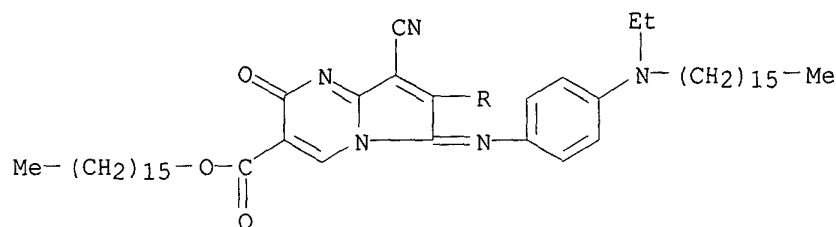
IT 81977-96-0P, Dimethyl isophthalate-dimethyl terephthalate-dimethyl 5-sodiosulfoisophthalate-ethylene glycol-neopentyl glycol copolymer  
213381-36-3P, Dimethyl 5-sodiosulfoisophthalate-dimethyl terephthalate-ethylene glycol-tricyclodecanedimethanol copolymer  
RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(water-thinned jet-**printing** inks with good water and light resistance and storage stability)

IT **303022-13-1**  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(oil-sol. **dye**; water-thinned jet-**printing** inks with good water and light resistance and storage stability)

RN 303022-13-1 HCA

CN Pyrrolo[1,2-a]pyrimidine-3-carboxylic acid, 8-cyano-6-[[4-(ethylhexadecylamino)phenyl]imino]-2,6-dihydro-2-oxo-7-[3-[(1-

oxohexyl)amino]phenyl]-, hexadecyl ester (9CI) (CA INDEX NAME)



L36 ANSWER 5 OF 12 HCA COPYRIGHT 2003 ACS

132:271681 Thermal image-forming material using **dye** forming coupler-releasing compound and image formation using same. Okawa, Atsuhiko (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2000103166 A2 20000411, 29 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1998-275722 19980929.

AB The title image-recording material contains a compd. CR1R2LNArD (I; Ar = aryl, arom. heterocyclic group; D = group other than acyl which releases by heating or by the action of acid; L = group which releases after release of D; R1 and R2 form a **dye**-forming coupler residue together and may link each other to form a ring; C = coupling C) and is imagewise heat-treated to form an image. The material may contain a compd. that generates an acid by light irradiation or heating in addition to I and may be irradiated with a laser or imagewise heat-treated to form an image. The material provides high quality **color** images without discoloration upon storage.

IC ICM B41M005-26

ICS B41M005-30

CC 74-6 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST **dye** forming coupler releasing compd; thermal **printing dye** coupler; acid generator thermal **printing** material

IT Thermal **printing** materials

(thermal image-forming material contg. **dye**-forming coupler-releasing compd.)

IT 263162-49-8 263162-51-2

RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. of **dye**-forming coupler releasing compd.)

IT 263162-38-5P

RL: PNU (Preparation, unclassified); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(thermal image-forming material contg. **dye**-forming coupler-releasing compd.)

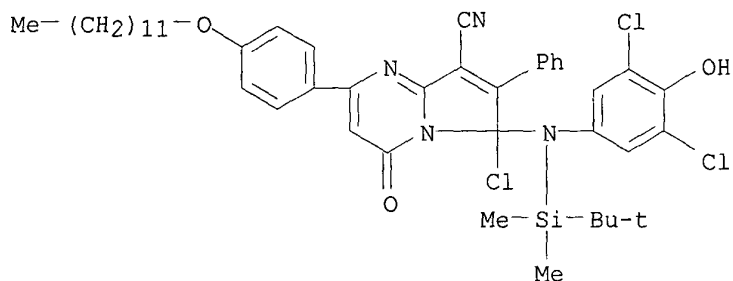
IT 263162-39-6 263162-40-9 263162-42-1 263162-43-2 263162-44-3

263162-46-5 **263162-47-6** 263163-15-1

RL: TEM (Technical or engineered material use); USES (Uses)

(thermal image-forming material contg. **dye**-forming

- coupler-releasing compd.)
- IT 88513-98-8  
RL: TEM (Technical or engineered material use); USES (Uses)  
(thermal image-forming material contg. **dye**-forming  
coupler-releasing compd. and IR absorbent)
- IT 188590-03-6  
RL: TEM (Technical or engineered material use); USES (Uses)  
(thermal image-forming material contg. **dye**-forming  
coupler-releasing compd. and acid generator)
- IT 263162-47-6  
RL: TEM (Technical or engineered material use); USES (Uses)  
(thermal image-forming material contg. **dye**-forming  
coupler-releasing compd.)
- RN 263162-47-6 HCA
- CN Pyrrolo[1,2-a]pyrimidine-8-carbonitrile, 6-chloro-6-[(3,5-dichloro-4-hydroxyphenyl)[(1,1-dimethylethyl)dimethylsilyl]amino]-2-[4-(dodecyloxy)phenyl]-4,6-dihydro-4-oxo-7-phenyl- (9CI) (CA INDEX NAME)



- L36 ANSWER 6 OF 12 HCA COPYRIGHT 2003 ACS
- 132:209146 Lightfast **coloring** agents and image recording materials, thermal transfer materials, and **ink-jet** recording fluids containing them. Oya, Hidenobu; Kaneko, Manabu; Kida, Shuji (Konica Co., Japan). Jpn. Kokai Tokkyo Koho JP 2000080295 A2 20000321, 46 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1999-143284 19990524. PRIORITY: JP 1998-193794 19980624.
- AB The **coloring** agents represented by AN:B [I; B = coupler component binding to N at an active site; A = N-contg. heterocyclic or heteropolycyclic ring, where .gtoreq.1 N in the ring is placed at an end of conjugation to form conjugated chain with N:B; except A being amino-substituted hetero ring and B being (un)substituted phenol] are prepd. Other **coloring** agents AC(R1):B (R1 = H, substituent), etc., are also claimed. Thus, a MEK-based thermal transfer ink contg. I [A = 1-tert-butyl-3-pyrrolyl; B = C(OCMe3)CONH-o-C6H4OMe] and polyvinyl butyral (BL 1) formed a light-resistant yellow image. Syntheses of several **colorants** were exemplified.
- IC ICM C09B023-00  
ICS B41M005-00; B41M005-38; C09B055-00
- CC 41-11 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)  
Section cross-reference(s): 42, 74
- ST lightfast thermal transfer **colorant**  
methoxyanilinocarbonylbutoxymethyl iminopyrrole; heterocyclic imine **colorant ink jet** recording
- IT Polyvinyl butyrals  
RL: TEM (Technical or engineered material use); USES (Uses)  
(binder, BL 1; lightfast **coloring** agents for image recording materials, thermal transfer materials, and **ink-jet**

recording fluids)

IT **Inks**  
 (jet-printing; lightfast coloring agents  
 for image recording materials, thermal transfer materials, and  
 ink-jet recording fluids)

IT **Coloring materials**  
 (lightfast coloring agents for image recording materials,  
 thermal transfer materials, and ink-jet recording  
 fluids)

IT **Inks**  
 (printing, thermal-transfer; lightfast coloring  
 agents for image recording materials, thermal transfer materials, and  
 ink-jet recording fluids)

IT 260800-41-7P 260800-61-1P 260800-77-9P 260800-95-1P 260801-27-2P  
 260801-28-3P 260801-29-4P 260801-30-7P 260801-31-8P 260801-32-9P  
 260801-33-0P 260801-34-1P 260801-35-2P 260801-37-4P 260801-38-5P  
 260801-39-6P 260801-40-9P 260802-41-3P  
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or  
 engineered material use); PREP (Preparation); USES (Uses)  
 (lightfast coloring agents for image recording materials,  
 thermal transfer materials, and ink-jet recording  
 fluids)

IT 260801-26-1P  
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material  
 use); PREP (Preparation); USES (Uses)  
 (lightfast coloring agents for image recording materials,  
 thermal transfer materials, and ink-jet recording  
 fluids)

IT 260800-35-9 260800-36-0 260800-37-1 260800-38-2 260800-39-3  
 260800-40-6 260800-42-8 260800-43-9 260800-44-0 260800-45-1  
 260800-46-2 260800-47-3 260800-48-4 260800-49-5 260800-50-8  
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 260800-62-2 260800-63-3 260800-64-4 260800-65-5 260800-66-6  
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 260800-88-2 260800-89-3 260800-90-6 260800-91-7 260800-92-8  
 260800-93-9 260800-94-0 260800-96-2 **260800-97-3**  
 260800-98-4 260800-99-5 260801-00-1 260801-01-2 260801-02-3  
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 260801-56-7 260801-57-8 260801-58-9 260801-59-0 260801-60-3  
 260801-61-4 260801-62-5 260801-63-6 260801-64-7 260801-65-8  
 260801-66-9 260801-67-0 260801-68-1 260801-69-2 260801-70-5  
 260801-71-6 260801-72-7 260801-73-8 260801-74-9 260801-75-0  
 260801-76-1 260801-77-2 260801-78-3 260801-79-4 260801-80-7  
 260801-81-8 260801-82-9 260801-83-0 260801-84-1 260801-85-2  
 260801-86-3 260801-87-4 260801-88-5 260801-89-6 260801-90-9  
 260801-91-0 260801-92-1 260801-93-2 260801-94-3 260801-95-4  
 260801-96-5 260801-97-6 260801-98-7 260801-99-8 260802-00-4  
 260802-01-5 260802-02-6 260802-03-7 260802-04-8 260802-05-9  
 260802-06-0 260802-07-1 260802-08-2 260802-09-3 260802-10-6  
 260802-11-7 260802-12-8 260802-13-9 260802-14-0 260802-15-1

260802-16-2 260802-17-3 260802-18-4 260802-19-5

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

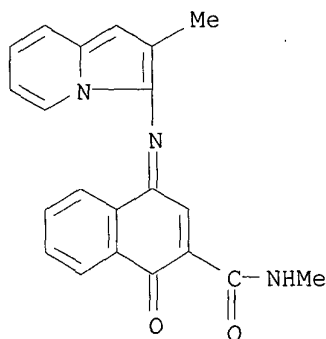
(lightfast **coloring** agents for image recording materials, thermal transfer materials, and **ink-jet** recording fluids)IT 670-83-7, 2,5-Diphenylimidazole 768-18-3, 2-Methylindolizine  
53603-63-7 260801-21-6RL: RCT (Reactant); RACT (Reactant or reagent)  
(reaction with **color** couplers)IT **260800-97-3 260801-05-6**

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(lightfast **coloring** agents for image recording materials, thermal transfer materials, and **ink-jet** recording fluids)

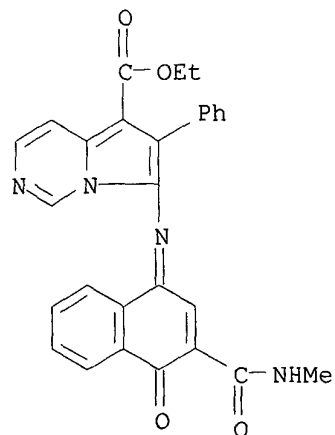
RN 260800-97-3 HCA

CN 2-Naphthalenecarboxamide, 1,4-dihydro-N-methyl-4-[(2-methyl-3-indolizinyloxy)imino]-1-oxo- (9CI) (CA INDEX NAME)



RN 260801-05-6 HCA

CN Pyrrolo[1,2-c]pyrimidine-5-carboxylic acid, 7-[[3-[(methylamino)carbonyl]-4-oxo-1(4H)-naphthalenylidene]amino]-6-phenyl-, ethyl ester (9CI) (CA INDEX NAME)

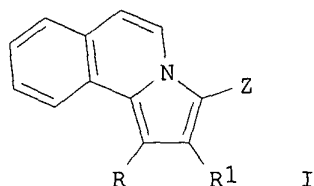


L36 ANSWER 7 OF 12 HCA COPYRIGHT 2003 ACS

127:110293 Pyrrolo[2,1-a]isoquinoline **dyes**. Cuny, Gregory D.

(Minnesota Mining and Mfg. Co., USA). Eur. Pat. Appl. EP 780443 A2  
 19970625, 19 pp. DESIGNATED STATES: R: DE, FR, GB, IT. (English).  
 CODEN: EPXXDW. APPLICATION: EP 1996-119155 19961129. PRIORITY: US  
 1995-576502 19951221.

GI



AB The **dyes** have the structure I, where R is (un)substituted Ph, R1 is alkyl, aryl, aralkyl, or alkaryl, and Z contains N+, a carbonyl group, or CN at the end of a pathway of conjugated double bonds; the isoquinoline ring may also be substituted with OMe groups. The **dyes** have greater thermal and chem. stability than their indolizine analogs and have narrow absorption bands in the range 500-900 nm. Those that absorb in the near-IR region (700-1400 nm) lack significant absorption in the 300-400 nm UV region of the spectrum. Thus, papaverine was quaternized with PhCOCH2Br, cyclized, and condensed with 4-Me2NC6H4CHO to gave a dark purple **dye** with .lambda.max 640 nm.

IC ICM C09B057-00

ICS C07D471-04

ICA G11B007-24; G03C001-83

ICI C07D471-04, C07D221-00, C07D209-00

CC 41-11 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

Section cross-reference(s): 74

ST papaverine deriv near IR **dye**; antihalation **dye**

pyrroloisoquinoline deriv; optical recording pyrroloisoquinoline deriv

IT Cyanine **dyes**

(antihalation; near-IR absorbing pyrroloisoquinoline **dyes**)

IT 192388-50-4P 192388-53-7P 192388-56-0P 192388-59-3P

**192388-62-8P** 192388-64-0P 192388-70-8P 192388-74-2P

192388-76-4P 192388-80-0P 192528-15-7P

RL: IMF (Industrial manufacture); PREP (Preparation)

(prepn. of near-IR absorbing pyrroloisoquinoline **dyes**)

IT 20353-61-1P 192388-48-0P 192388-66-2P 192388-68-4P 192388-78-6P

RL: IMF (Industrial manufacture); RCT (Reactant); PREP (Preparation); RACT (Reactant or reagent)

(prepn. of near-IR absorbing pyrroloisoquinoline **dyes**)

IT 58-74-2, Papaverine 70-11-1, Phenacyl bromide 78-95-5, Chloroacetone 100-10-7, p-(Dimethylamino)benzaldehyde 102-52-3, Malonaldehyde bis(dimethyl acetal) 122-51-0, Ethyl orthoformate 123-08-0 138-89-6, N,N-Dimethyl-p-nitrosoaniline 1497-49-0 2892-51-5 15568-85-1 101685-29-4, 3-(Dicyanomethylene)-3-phenylpropionitrile

RL: RCT (Reactant); RACT (Reactant or reagent)

(prepn. of near-IR absorbing pyrroloisoquinoline **dyes**)

IT **192388-62-8P**

RL: IMF (Industrial manufacture); PREP (Preparation)

(prepn. of near-IR absorbing pyrroloisoquinoline **dyes**)

RN 192388-62-8 HCA

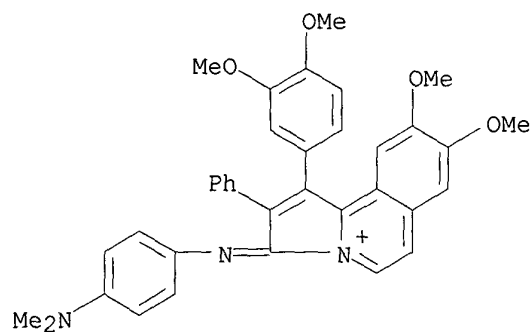
CN 3H-Pyrrolo[2,1-a]isoquinolinium, 1-(3,4-dimethoxyphenyl)-3-[[4-(dimethylamino)phenyl]imino]-8,9-dimethoxy-2-phenyl-, perchlorate (9CI)

(CA INDEX NAME)

CM 1

CRN 192799-91-0

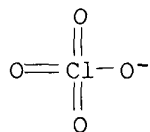
CMF C36 H34 N3 O4



CM 2

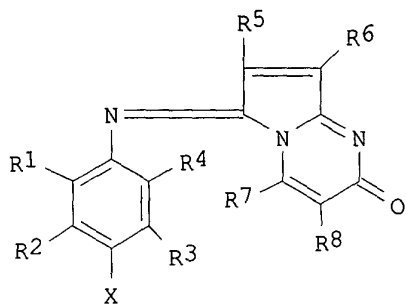
CRN 14797-73-0

CMF Cl O4

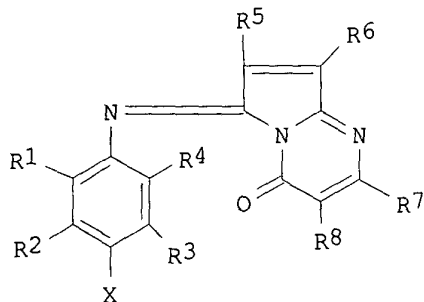


L36 ANSWER 8 OF 12 HCA COPYRIGHT 2003 ACS  
121:166817 silver halide photographic material. Myaki, Yukio; Mikoshiba,  
Takashi; Shimada, Yasuhiro (Fuji Photo Film Co Ltd, Japan). Jpn. Kokai  
Tokkyo Koho JP 05341430 A2 19931224 Heisei, 37 pp. (Japanese). CODEN:  
JKXXAF. APPLICATION: JP 1992-153399 19920612.

GI



I



II

AB A black-and-white silver halide photog. material for use in x-ray films comprises silver halide photog. emulsion layers and an insol. azomethine **dye** represented by the formula I and II (R1-8 = H or a nonmetallic at. group; X = OH or NR9R10; R9, R10 = H, alkyl, aryl, or a heterocyclic ring group with the proviso that R1 and R2, R2 and R9, R9 and R10, R3 and R10, R3 and R4, R5 and R6, and/or R7 and R8 may combine to form a ring) or the like in a hydrophilic colloidal layer on the same or opposite side of the photog. emulsion layers.

IC ICM G03C001-40

ICS G03C001-12; G03C001-76

CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST azomethine **dye** x ray photog film; black white photog film

azomethine **dye**

IT Photographic films

(contg. azomethine **dyes**)

IT 144918-50-3 144918-51-4 **150147-78-7 150147-81-2**

**150147-82-3 150147-86-7** 151796-85-9 151796-86-0

151797-04-5 152781-71-0 152781-72-1 152781-74-3 152781-76-5

152781-83-4 152781-84-5 157683-29-9 157683-30-2 157683-31-3

157683-32-4 157683-33-5

RL: USES (Uses)

(black-and-white silver halide photog. materials contg.)

IT **150147-78-7 150147-81-2 150147-82-3**

**150147-86-7**

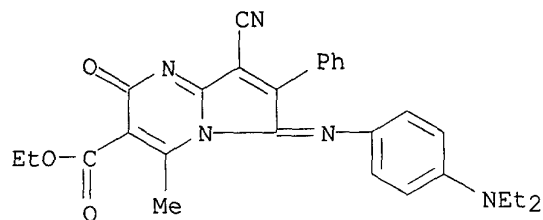
RL: USES (Uses)

(black-and-white silver halide photog. materials contg.)

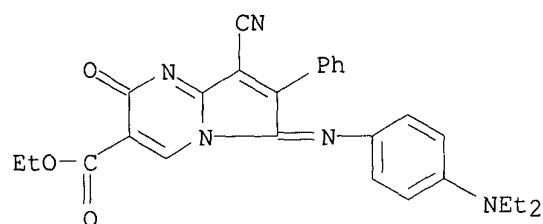
RN 150147-78-7 HCA

CN Pyrrolo[1,2-a]pyrimidine-3-carboxylic acid, 8-cyano-6-[[4-(diethylamino)phenyl]imino]-2,6-dihydro-4-methyl-2-oxo-7-phenyl-, ethyl ester (9CI) (CA INDEX NAME)

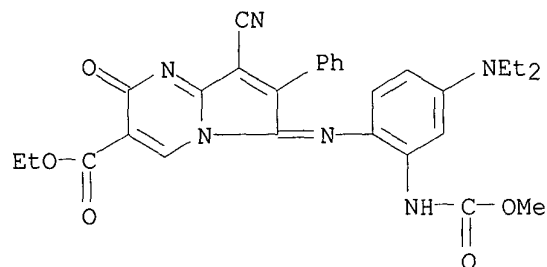




RN 150147-81-2 HCA  
 CN Pyrrolo[1,2-a]pyrimidine-3-carboxylic acid, 8-cyano-6-[[4-(diethylamino)phenyl]imino]-2,6-dihydro-2-oxo-7-phenyl-, ethyl ester (9CI)  
 (CA INDEX NAME)

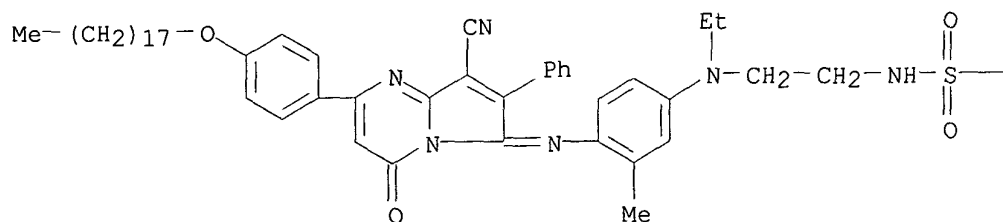


RN 150147-82-3 HCA  
 CN Pyrrolo[1,2-a]pyrimidine-3-carboxylic acid, 8-cyano-6-[[4-(diethylamino)-2-[(methoxycarbonyl)amino]phenyl]imino]-2,6-dihydro-2-oxo-7-phenyl-, ethyl ester (9CI) (CA INDEX NAME)



RN 150147-86-7 HCA  
 CN Methanesulfonamide, N-[2-[[4-[[8-cyano-2-[4-(octadecyloxy)phenyl]-4-oxo-7-phenylpyrrolo[1,2-a]pyrimidin-6(4H)-ylidene]amino]-3-methylphenyl]ethylamino]ethyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



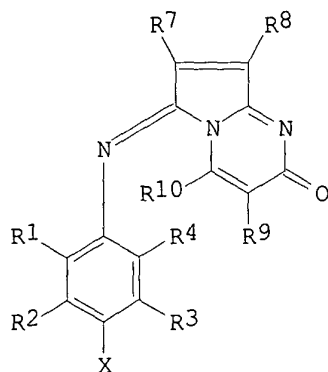
PAGE 1-B

— Me

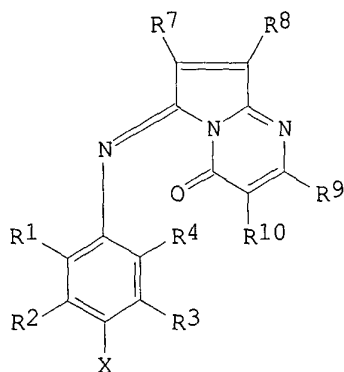
L36 ANSWER 9 OF 12 HCA COPYRIGHT 2003 ACS

119:162373 Azomethine **dyes** with near infrared absorption and thermal-transfer elements incorporating them. Mikoshiba, Takashi; Yamakawa, Kazuyoshi (Fuji Photo Film Co Ltd, Japan). Jpn. Kokai Tokkyo Koho JP 05070705 A2 19930323 Heisei, 39 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 1991-258739 19910911.

GI



I



II

AB The **dyes**, producing thermal-transfer images with good lightfastness and sharpness, have the general formulas I and II (R1-R4, R7-R10 = H, group of nonmetallic atoms; X = OH, NR5R6; R5, R6 = H, alkyl, aryl, heterocyclic group; some of the R's may be combined to form a ring). I (X = NEtCH2CH2NHSO2Me; R1 = R10 = Me; R2 = R3 = R4 = H; R7 = Ph; R8 = CN; R9 = CO2Et),  $\lambda_{\text{max}}$  697 nm, was prepd. starting from 2-amino-3-cyano-4-phenylpyrrole and di-Et (1-ethoxyethylidene)malonate.

IC ICM C09B055-00

ICS B41M005-38

CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)

ST pyrrolopyrimidine azomethine **dye** thermal transfer

IT **Dyes**

(pyrrolopyrimidone azomethines, manuf. of, for thermal-transfer printing)

IT **Printing**, nonimpact

(thermal-transfer, pyrrolopyrimidone azomethine **dyes** for)

IT 150147-79-8 150147-83-4 150147-84-5

150147-85-6 150172-53-5 150244-54-5

150244-55-6

RL: USES (Uses)

(**dye**, for thermal-transfer printing)

IT 150147-77-6P 150147-78-7P 150147-80-1P

150147-81-2P 150147-82-3P 150147-86-7P

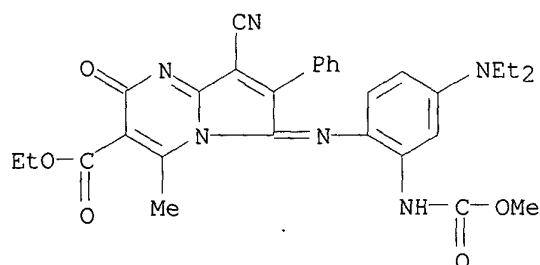
RL: IMF (Industrial manufacture); PREP (Preparation)  
(prepn. of, as **dye** for thermal-transfer **printing**)

IT 150147-79-8 150147-83-4 150147-84-5  
150147-85-6 150172-53-5 150244-54-5  
150244-55-6

RL: USES (Uses)  
(**dye**, for thermal-transfer **printing**)

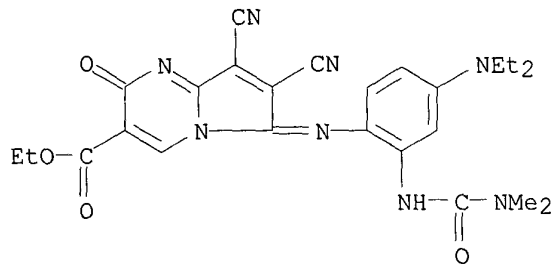
RN 150147-79-8 HCA

CN Pyrrolo[1,2-a]pyrimidine-3-carboxylic acid, 8-cyano-6-[[4-(diethylamino)-2-[(methoxycarbonyl)amino]phenyl]imino]-2,6-dihydro-4-methyl-2-oxo-7-phenyl-, ethyl ester (9CI) (CA INDEX NAME)



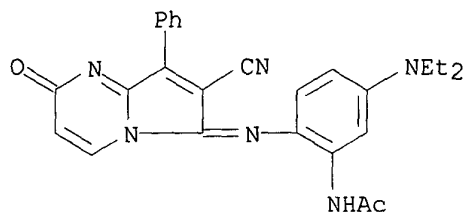
RN 150147-83-4 HCA

CN Pyrrolo[1,2-a]pyrimidine-3-carboxylic acid, 7,8-dicyano-6-[[4-(diethylamino)-2-[(dimethylamino)carbonyl]amino]phenyl]imino]-2,6-dihydro-2-oxo-, ethyl ester (9CI) (CA INDEX NAME)



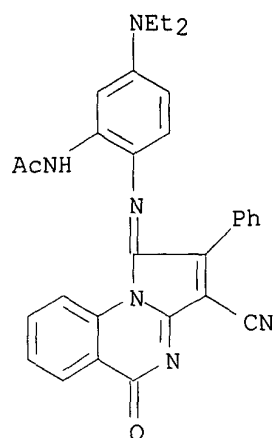
RN 150147-84-5 HCA

CN Acetamide, N-[2-[(7-cyano-2-oxo-8-phenylpyrrolo[1,2-a]pyrimidin-6(2H)-ylidene)amino]-5-(diethylamino)phenyl]- (9CI) (CA INDEX NAME)



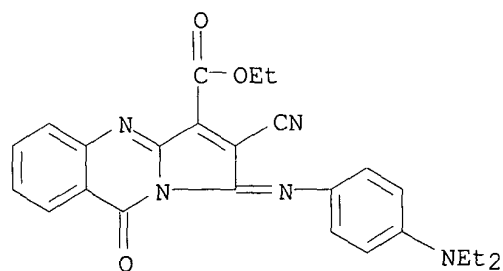
RN 150147-85-6 HCA

CN Acetamide, N-[2-[(3-cyano-5-oxo-2-phenylpyrrolo[1,2-a]quinazolin-1(5H)-ylidene)amino]-5-(diethylamino)phenyl]- (9CI) (CA INDEX NAME)



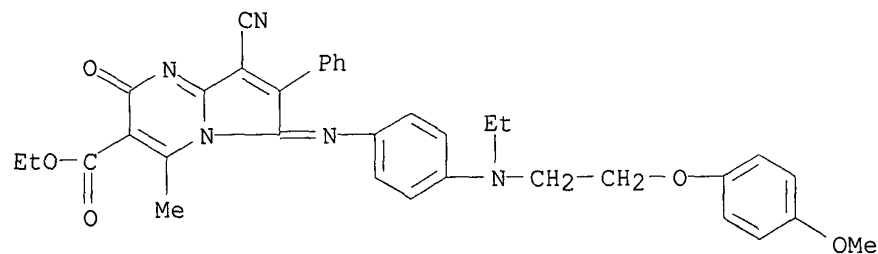
RN 150172-53-5 HCA

CN Pyrrolo[2,1-b]quinazoline-3-carboxylic acid, 2-cyano-1-[[4-(diethylamino)phenyl]imino]-1,9-dihydro-9-oxo-, ethyl ester (9CI) (CA INDEX NAME)



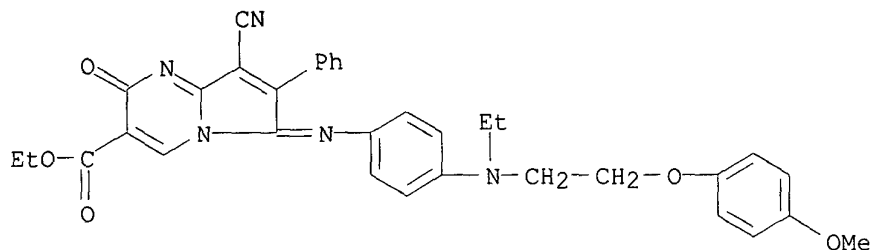
RN 150244-54-5 HCA

CN Pyrrolo[1,2-a]pyrimidine-3-carboxylic acid, 8-cyano-6-[[4-[ethyl[2-(4-methoxyphenoxy)ethyl]amino]phenyl]imino]-2,6-dihydro-4-methyl-2-oxo-7-phenyl-, ethyl ester (9CI) (CA INDEX NAME)



RN 150244-55-6 HCA

CN Pyrrolo[1,2-a]pyrimidine-3-carboxylic acid, 8-cyano-6-[[4-[ethyl[2-(4-methoxyphenoxy)ethyl]amino]phenyl]imino]-2,6-dihydro-2-oxo-7-phenyl-, ethyl ester (9CI) (CA INDEX NAME)



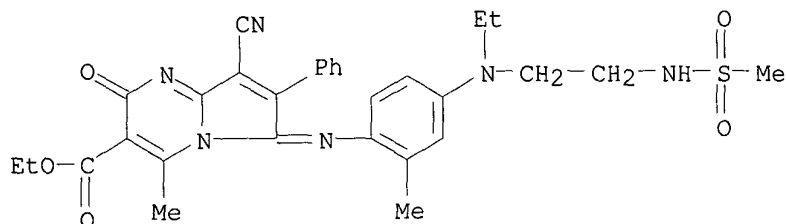
IT 150147-77-6P 150147-78-7P 150147-80-1P

150147-81-2P 150147-82-3P 150147-86-7P

RL: IMF (Industrial manufacture); PREP (Preparation)  
(prepn. of, as **dye** for thermal-transfer **printing**)

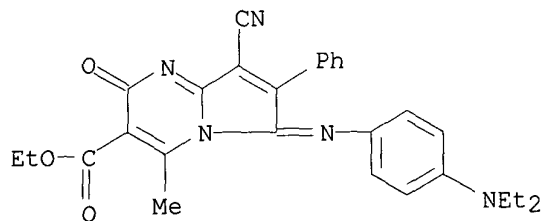
RN 150147-77-6 HCA

CN Pyrrolo[1,2-a]pyrimidine-3-carboxylic acid, 8-cyano-6-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-2,6-dihydro-4-methyl-2-oxo-7-phenyl-, ethyl ester (9CI) (CA INDEX NAME)



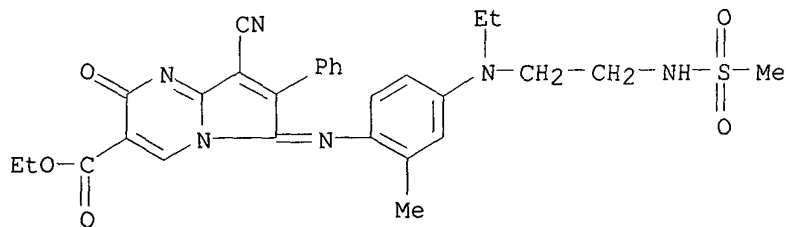
RN 150147-78-7 HCA

CN Pyrrolo[1,2-a]pyrimidine-3-carboxylic acid, 8-cyano-6-[[4-(diethylamino)phenyl]imino]-2,6-dihydro-4-methyl-2-oxo-7-phenyl-, ethyl ester (9CI) (CA INDEX NAME)



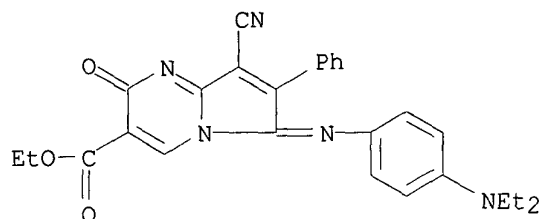
RN 150147-80-1 HCA

CN Pyrrolo[1,2-a]pyrimidine-3-carboxylic acid, 8-cyano-6-[[4-[ethyl[2-[(methylsulfonyl)amino]ethyl]amino]-2-methylphenyl]imino]-2,6-dihydro-2-oxo-7-phenyl-, ethyl ester (9CI) (CA INDEX NAME)



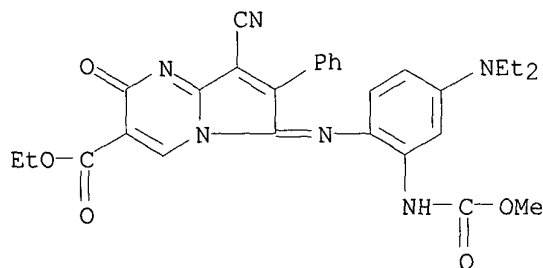
RN 150147-81-2 HCA

CN Pyrrolo[1,2-a]pyrimidine-3-carboxylic acid, 8-cyano-6-[[4-(diethylamino)phenyl]imino]-2,6-dihydro-2-oxo-7-phenyl-, ethyl ester (9CI)  
(CA INDEX NAME)



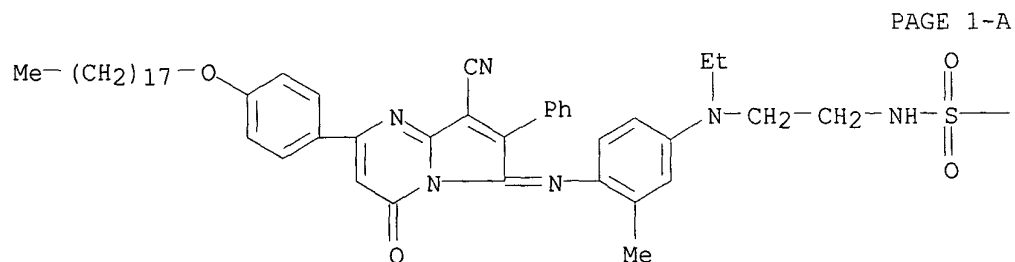
RN 150147-82-3 HCA

CN Pyrrolo[1,2-a]pyrimidine-3-carboxylic acid, 8-cyano-6-[[4-(diethylamino)-2-[(methoxycarbonyl)amino]phenyl]imino]-2,6-dihydro-2-oxo-7-phenyl-, ethyl ester (9CI) (CA INDEX NAME)



RN 150147-86-7 HCA

CN Methanesulfonamide, N-[2-[[4-[[8-cyano-2-[4-(octadecyloxy)phenyl]-4-oxo-7-phenylpyrrolo[1,2-a]pyrimidin-6(4H)-ylidene]amino]-3-methylphenyl]ethylamino]ethyl]- (9CI) (CA INDEX NAME)



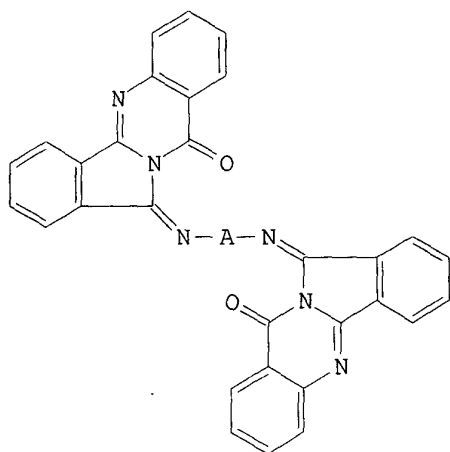
PAGE 1-A

PAGE 1-B

— Me

109:172126 Heterocyclic **dyes**, their preparation, and their use for coloring organic polymers. Rolf, Meinhard (Bayer A.-G., Fed. Rep. Ger.). Ger. Offen. DE 3642104 A1 19880616, 14 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1986-3642104 19861210.

GI



I

AB The title compds. I (A = divalent org. residue), useful for coloring high mol. wt. org. compds., are prepd.  
12-Iminoisoindolo[1,2-b]quinazolin-10(12H)-one was condensed with p-phenylenediamine forming I (A = 1,4-C<sub>6</sub>H<sub>4</sub>), which imparted a fast yellow color to adipic acid-hexamethylenediamine copolymer.

IC ICM C09B057-00  
ICS C09B067-20; C08K005-34

ICA C09B057-04; C09D017-00; C09D011-02

ICI C08J003-20, C08K005-34

CC 41-5 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)  
Section cross-reference(s): 37

ST org polymer heterocyclic **dye** manuf; iminoisoindoloquinazolinone reaction phenylenediamine

IT Polymers, uses and miscellaneous  
RL: USES (Uses)  
(**dyes** for, iminoisoindoloquinazolinone bis derivs. as)

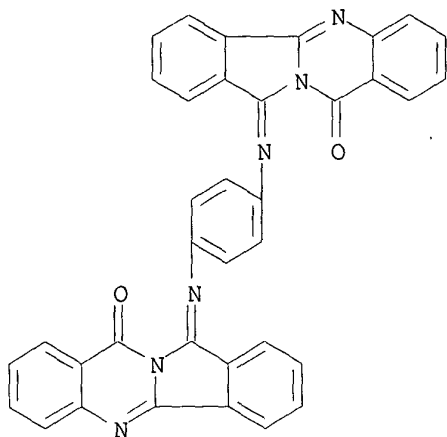
IT **Dyes**  
(iminoisoindoloquinazolinone bis derivs. as, for high mol. wt. org. compds.)

IT 25038-54-4, Polycaprolactam, uses and miscellaneous 25038-59-9, Ethylene glycol-terephthalic acid copolymer, uses and miscellaneous 32131-17-2, uses and miscellaneous  
RL: USES (Uses)  
(iminoisoindoloquinazolinone bis deriv. **pigments** for)

IT 9002-88-4, Polyethylene 9003-07-0, Polypropylene 9003-53-6, Polystyrene  
RL: USES (Uses)  
(iminoisoindoloquinazolinone **pigment** compns. contg., for org. polymers)

IT 117178-60-6P

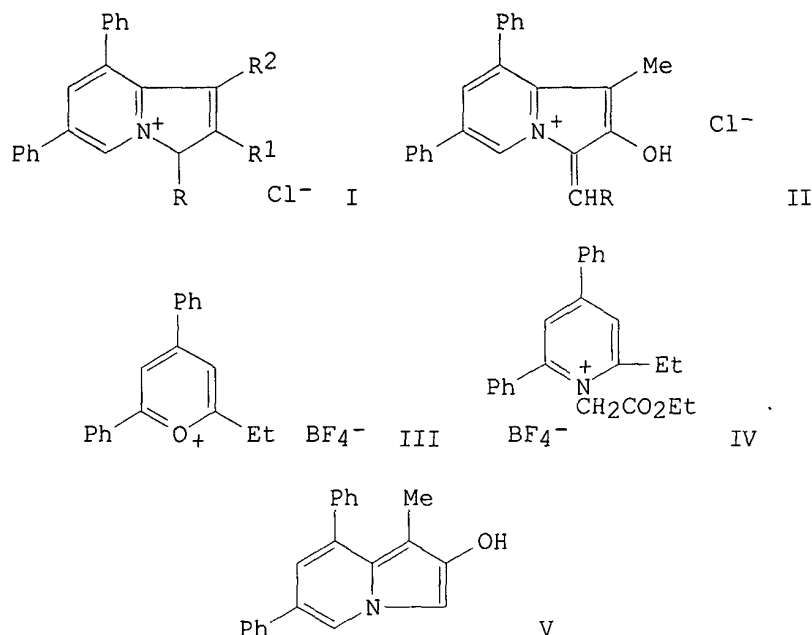
RL: PREP (Preparation)  
(manuf. of, as yellow **dye** for org. polymers)  
IT **117178-60-6P**  
RL: PREP (Preparation)  
(manuf. of, as yellow **dye** for org. polymers)  
RN 117178-60-6 HCA  
CN Isoindolo[1,2-b]quinazolin-10(12H)-one, 12,12'-(1,4-phenylenedinitrilo)bis-  
(9CI) (CA INDEX NAME)



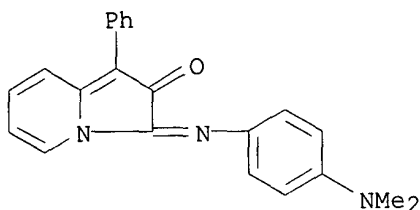
L36 ANSWER 11 OF 12 HCA COPYRIGHT 2003 ACS  
106:196186 Isomers and aza analogs of indoxyl containing nitrogen at a ring-fusion position: coupling reactions with electrophiles and attempted oxidations. Katritzky, Alan R.; Caster, Kenneth C.; Rubio, Olga; Schwarz, Otto (Dep. Chem., Univ. Florida, Gainesville, FL, 32611, USA). Journal of Heterocyclic Chemistry, 23(5), 1315-25 (English) 1986. CODEN: JHTCAD. ISSN: 0022-152X. OTHER SOURCES: CASREACT 106:196186.

GI





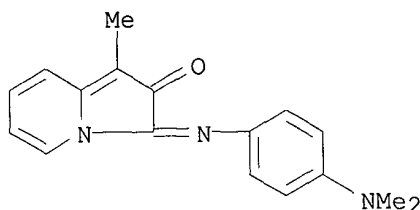
- AB A series of indolizines, e.g., I (R = H, R1 = OH, R2 = Me; R = Ph, R1 = OH, R2 = H) were prepd. and condensed with substituted benzaldehydes. The absorption spectra of the resulting benzylidenes, e.g., II (R = p-Me2NC6H4) were studied as analogs of indoxyls. Thus, pyrylium salt III was treated with EtO2CCH2NH2.HCl to give pyridinium IV. Treatment of IV with NaHCO3 gave indolizine V which was converted to I (R = H, R1 = OH, R2 = Me) with HCl. Condensation of I (R = H, R1 = OH, R2 = Me) with p-Me2NC6H4CHO gave II (R = p-Me2NC6H4).
- CC 27-11 (Heterocyclic Compounds (One Hetero Atom))  
Section cross-reference(s): 41
- ST indolizine benzylidene; indoxyl aza; indolizine benzaldehyde condensation; azaindoxyl; **dye** indigo isomer aza analog
- IT 107933-88-0P 107933-90-4P 107933-91-5P 107933-92-6P 107933-93-7P  
107933-98-2P 107933-99-3P 107934-00-9P **107934-02-1P**  
107934-04-3P 107934-06-5P  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(prepn. and UV spectrum of)
- IT 100-23-2P, 4-Nitrodimethylaniline 107933-79-9P 107933-83-5P  
107933-87-9P 107933-94-8P 107933-95-9P 107933-96-0P 107933-97-1P  
**107934-01-0P** 107934-03-2P 107934-05-4P 107934-10-1P  
107934-12-3P  
RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of)
- IT **107934-02-1P**  
RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)  
(prepn. and UV spectrum of)
- RN 107934-02-1 HCA
- CN 2(3H)-Indolizinone, 3-[[4-(dimethylamino)phenyl]imino]-1-phenyl- (9CI)  
(CA INDEX NAME)



IT 107934-01-0P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of)

RN 107934-01-0 HCA

CN 2(3H)-Indolizinone, 3-[[4-(dimethylamino)phenyl]imino]-1-methyl- (9CI)  
(CA INDEX NAME)

L36 ANSWER 12 OF 12 HCA COPYRIGHT 2003 ACS

54:20156 Original Reference No. 54:3981b-i,3982a-b Phthaloperine  
**pigments**. Wilkinson, Donald G. (Imperial Chemical Industries  
Ltd.). US 2884423 19590428 (Unavailable). APPLICATION: US .

GI For diagram(s), see printed CA Issue.

AB Heating primary alkyl, cycloalkyl, aralkyl, aryl or heterocyclic amines with a polycyclic compd. of the structure C, in which A and B are substd. or unsubstituted hydrocarbon radicals which may be joined together to form a homo- or hetero-cyclic system, X is NH or S and the nuclei P and Q may be substd., gives rise to new **pigments**, D, in which R is an alkyl, cycloalkyl, aralkyl, aryl, or heterocyclic radical and n is 1-3. The new materials are bright **pigments** of high **tinctorial** strength and high stability to heat and light and are especially valuable for **coloring** plastics which are to be molded, for lacquers, paints, and varnishes, and for use in mass **coloration** of polymers which are to be drawn into fibers and films. They may also be used in the form of aq. dispersions for **dyeing** artificial fibers. A mixt. of 12-iminophthaloperine (I) 1, p-phenetidine 1 and diphenylamine (II) 4 is stirred at 280.degree. for 1 hr., cooled to 100.degree., treated with PhNO<sub>2</sub> 4 parts, and then cooled to 20.degree.. On filtering, washing with benzene, and drying, 12-(p-ethoxyphenylimino)phthaloperine, m. 264-6.degree., orange needles, are obtained. I 1 and aniline-HCl (III) 1 give 12-(phenylimino)phthaloperine, reddish orange crystals, m. 237-8. When III is replaced with the following amine HCl salts, **pigments** are obtained with the accompanying m.p. and shade: 3-nitroaniline, 275-80.degree., brown; 4-nitroaniline, 266-74.degree., reddish brown; 1-naphthylamine, 240-50.degree., reddish brown; 3-aminopyrene, 300-5.degree., bluish red; N,N-diethyl-4-methoxy-3-aminobenzenesulfonamide, 215-20.degree., yellowish brown; 2-naphthylamine, 260-5.degree., reddish brown; 2-naphthylamine-6-sulfonamide, 290-300.degree. decompn., reddish brown.

Dehydrothio-p-toluidine 1.7 and I 1 part give 12- [p-(6 - methylbenzothiazol-2-yl)phenylimino] phthaloperine, red crystals. I 15, p-phenylenediamine (IV) 2, and II 40 parts give p-phenylenebis(12-aminophthaloperine) (V), m. above 430.degree., dark purplish red. Replacement of IV with m-phenylenediamine (VI) gave a similar **pigment**, m. above 400.degree.. Replacement of IV with benzidine 3.4 parts gives a red **pigment**, m. >450.degree.. o-Tolidine 4 parts in place of IV gives a red **pigment**, m. 400-5.degree.. I 100 and 1,5-naphthalenediamine-di-HCl (VII) 29 give 1,5-naphthalenebis(12-aminophthaloperine), m. >450.degree., red, sparingly sol. in H2O. When VII is replaced with the following amine-HCl salts, **pigments** are obtained with the accompanying m.p. and shade: 2,5-dichloro-p-phenylenediamine, >450.degree., brownish red; 2,5-dimethyl-p-phenylenediamine, >400.degree., red; 3,3'-dichloro-4,4'-diaminobiphenyl, 378-80.degree., brown; 1,2-bis(4-aminophenoxy)ethane, 365-8.degree., orange brown; 2-chloro-p-phenylenediamine, 390-3.degree., red; 1,4-naphthalenediamine, 390-5.degree., bluish red; 1,6-naphthalenediamine, >440.degree., orange red; 1,7-naphthalenediamine, 390-3.degree., red; 2,6-naphthalenediamine, >450.degree., red; 2,7-naphthalenediamine, 405-15.degree., orange red; 2,2'-dichloro-4,4'-diaminobiphenyl, 390-5.degree., brown; 2,2'-dimethyl-4,4'-diaminobiphenyl, 400-5.degree., orange brown; 2,2'-dinitro-4,4'-diaminobiphenyl, 370-3.degree., reddish brown; 2,2'-bis(trifluoromethyl)-4,4'-diaminobiphenyl, 375-8.degree., orange red; 3,3'-dimethoxy-4,4'-diaminobiphenyl, 397-408.degree., reddish brown; 4,4'-diaminodiphenyl sulfone, >450.degree., orange; 4,4'-diaminostilbene, >450.degree., orange red; 3,8-diaminopyrene, >450.degree., bluish red; 3,10-diaminopyrene, >450.degree., brownish red; 2,7-diaminofluorenone, >450.degree., reddish brown; 3,8-diaminodibenzofuran, 424-34.degree., reddish brown; 2,7-diaminobiphenylene sulfone, >440.degree., reddish brown. 12-Thiophthaloperine 15 parts and IV g give V. Chloro-12-aminophthaloperine (VIII) 28 and IV 5.5 parts give the chloro deriv. of V, m. >450.degree., bluer in shade than V. Replacement of IV with VI gives a red **pigment**, m. 394-7.degree.. Nitro-12-aminophthaloperine 28.5 and IV 5.5 parts give a violet-black cryst. material, m. >440.degree.. I 30 and 1,3,5-triaminobenzene-tri-HCl 6.5 parts give a dark brown product, m. >400.degree.. VIII 28 is replaced with 1,2-diphenyl-10-aminophthaloperine 27.5 and treated with IV 5.5 parts to give a violet **pigment**, m. 360.degree. decompn. I 27 and 2-phenylethylamine-HCl 16 give 12-[(2-phenylethyl)imino]phthaloperine, m. 152.degree., small orange needles or leaflets from light petroleum.

CC 25 (Dyes and Textiles)

IT Lacquers

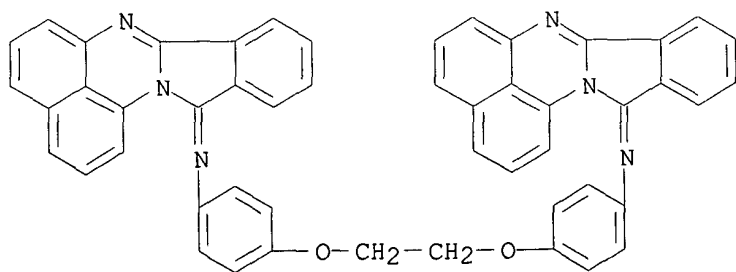
(**pigments** for)

IT 200-75-9, Phthaloperine

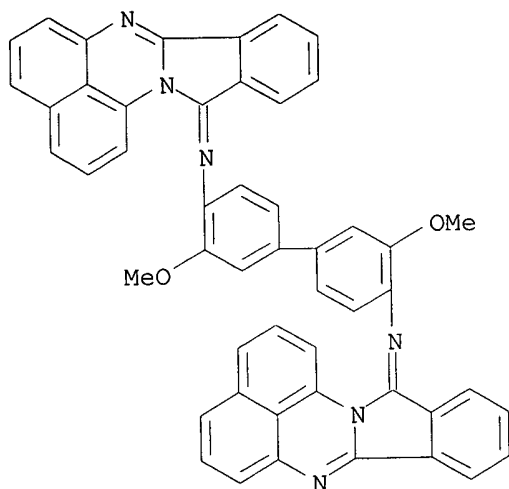
(derivs., as **pigments**)

IT 108322-43-6, Phthaloperine, 12,12'-[ethylenebis(oxy-p-phenylenenitrilo)]bis- 119247-29-9, Phthaloperine, 12,12'-[2,2'-dimethyl-4,4'-biphenylylenedinitrilo]bis- 119247-39-1, Phthaloperine, 12,12'-[3,3'-dimethyl-4,4'-biphenylylenedinitrilo]bis- 120233-60-5, Phthaloperine, 12-phenylimino- 120335-96-8, Phthaloperine, 12,12'-(4,4'-biphenylylenedinitrilo)bis- 120335-97-9, Phthaloperine, 12,12'-(2,2'-dinitro-4,4'-biphenylylenedinitrilo)bis- 120745-40-6, Phthaloperine, 12,12'-[1,4-pyrenylenedinitrilo]bis- 120745-41-7, Phthaloperine, 12,12'-[1,6-pyrenylenedinitrilo]bis- 120745-63-3, Phthaloperine, 12,12'-[1,6-naphthylenedinitrilo]bis- 120745-64-4, Phthaloperine, 12,12'-[2,7-naphthylenedinitrilo]bis- 120745-65-5, Phthaloperine, 12,12'-[1,7-naphthylenedinitrilo]bis- 120745-66-6, Phthaloperine, 12,12'-[2,6-naphthylenedinitrilo]bis- 120745-67-7, Phthaloperine, 12,12'-[1,5-naphthylenedinitrilo]bis- 120745-68-8, Phthaloperine, 12,12'-[1,4-naphthylenedinitrilo]bis- 120745-69-9,

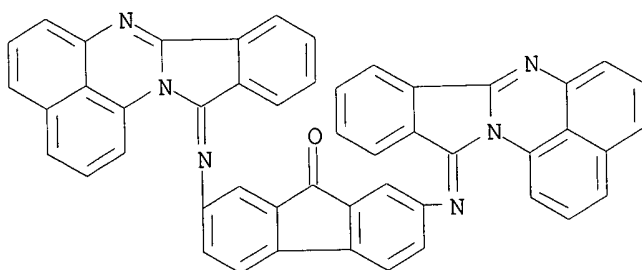
Phthaloperine, 12,12'-[p-phenylenedinitrilo]bis- 120745-80-4,  
 Phthaloperine, 12-[m-nitrophenylimino]- 120745-81-5, Phthaloperine,  
 12-[p-nitrophenylimino]- 120745-97-3, Phthaloperine,  
 12,12'-(chloro-p-phenylenedinitrilo)bis- 120772-40-9, Phthaloperine,  
 12,12'-(p-phenylenedinitrilo)bis[nitro- 120855-32-5, Phthaloperine,  
 12,12'-[m-phenylenedinitrilo]bis- 121075-99-8, Phthaloperine,  
 12,12'-[2,2'-dichloro-4,4'-biphenylylenedinitrilo]bis- 121076-00-4,  
 Phthaloperine, 12,12'-[3,3'-dichloro-4,4'-biphenylylenedinitrilo]bis-  
**121446-27-3**, Phthaloperine, 12,12'-(3,3'-dimethoxy-4,4'-  
 biphenylylenedinitrilo)bis- 121446-28-4, Phthaloperine,  
 12,12'-(2,2'-bis(trifluoromethyl)-4,4'-biphenylylenedinitrilo)bis-  
 121446-29-5, Phthaloperine, 12,12'-[vinylenebis(p-phenylenenitrilo)]bis-  
 121600-22-4, Phthaloperine, 12-[1-naphthylimino]- 121967-84-8,  
 Phthaloperine, 12,12'-(2,7-dibenzofurandiylidinitrilo)bis- 121967-85-9,  
 Phthaloperine, 12,12'-(3,8-dibenzothiophenediylidinitrilo)bis-, S,S-dioxide  
 121967-86-0, Phthaloperine, 12,12'-[sulfonylbis(p-phenylenenitrilo)]bis-  
 121973-89-5, Phthaloperine, 12,12'-(2,5-dimethyl-p-phenylenedinitrilo)bis-  
 122021-14-1, Phthaloperine, 12-[2-naphthylimino]- **122337-34-2**,  
 Fluoren-9-one, 2,7-bis(12-phthaloperinyldieneamino)- 122492-16-4,  
 Phthaloperine, 12,12'-(2,5-dichloro-p-phenylenedinitrilo)bis-  
 124103-40-8, Phthaloperine, 12,12'-[m-phenylenedinitrilo]bis[chloro-  
 124103-41-9, Phthaloperine, 12,12'-[p-phenylenedinitrilo]bis[chloro-  
**124145-42-2**, Phthaloperine, 12-(p-ethoxyphenylimino)-  
 124161-02-0, Phthaloperine, 12-(p-6-methyl-2-benzothiazolylphenylimino)-  
 124163-35-5, Phthaloperine, 12-phenethylimino- 124271-37-0,  
 2-Naphthalenesulfonamide, 6-(12-phthaloperinyldieneamino)-  
**124289-43-6**, Metanilamide, N1,N1-diethyl-4-methoxy-N3-12-  
 phthaloperinyldiene-  
 (prepn. of)  
 IT **108322-43-6**, Phthaloperine, 12,12'-[ethylenebis(oxy-p-  
 phenylenenitrilo)]bis- **121446-27-3**, Phthaloperine,  
 12,12'-(3,3'-dimethoxy-4,4'-biphenylylenedinitrilo)bis-  
**122337-34-2**, Fluoren-9-one, 2,7-bis(12-phthaloperinyldieneamino)-  
**124145-42-2**, Phthaloperine, 12-(p-ethoxyphenylimino)-  
**124289-43-6**, Metanilamide, N1,N1-diethyl-4-methoxy-N3-12-  
 phthaloperinyldiene-  
 (prepn. of)  
 RN 108322-43-6 HCA  
 CN Phthaloperine, 12,12'-[ethylenebis(oxy-p-phenylenenitrilo)]bis- (6CI) (CA  
 INDEX NAME)



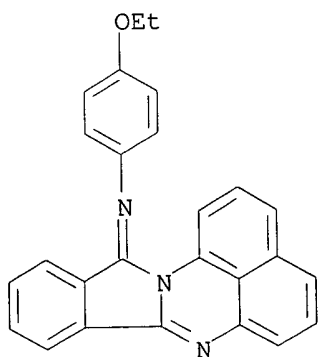
RN 121446-27-3 HCA  
 CN Phthaloperine, 12,12'-(3,3'-dimethoxy-4,4'-biphenylylenedinitrilo)bis-  
 (6CI) (CA INDEX NAME)



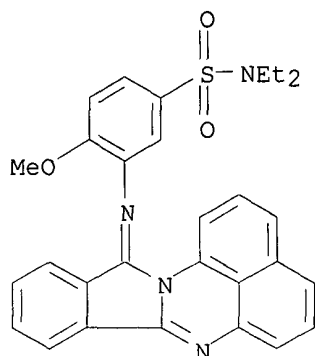
RN 122337-34-2 HCA  
 CN Fluoren-9-one, 2,7-bis(12-phthaloperinylideneamino)- (6CI) (CA INDEX NAME)



RN 124145-42-2 HCA  
 CN Phthaloperine, 12-(p-ethoxyphenylimino)- (6CI) (CA INDEX NAME)



RN 124289-43-6 HCA  
 CN Metanilamide, N1,N1-diethyl-4-methoxy-N3-12-phthaloperinylidene- (6CI) (CA INDEX NAME)



=> d L37 1-6 cbib abs hitstr

L37 ANSWER 1 OF 6 HCA COPYRIGHT 2003 ACS

136:183838 Preparation of nucleophilic substitution products using diazo compounds under mild conditions. Nigorikawa, Kazunori (Fuji Photo Film Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 2002047259 A2 20020212, 25 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP 2001-80591 20010321. PRIORITY: JP 2000-151876 20000523.

GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The products useful for recording materials, pharmaceuticals, pesticide intermediates, etc. are prepd. by treating couplers having leaving groups except H with nucleophilic compds. in the presence of diazo compds. Thus, I was prepd. by treating a coupler II (oxidn. potential 0.60 V) with III in the presence of IV.

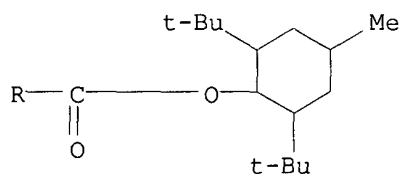
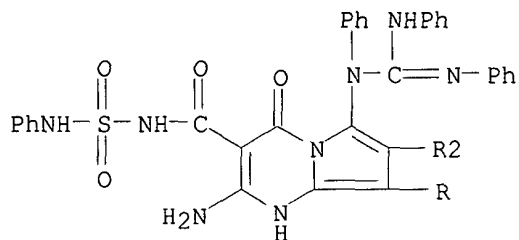
IT **399043-73-3P**

RL: IMF (Industrial manufacture); PREP (Preparation)  
(prepn. of nucleophilic substitution products using diazo compds. under mild conditions)

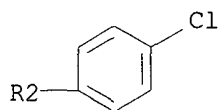
RN 399043-73-3 HCA

CN Pyrrolo[1,2-a]pyrimidine-8-carboxylic acid, 2-amino-7-(4-chlorophenyl)-1,4-dihydro-4-oxo-3-[[[(phenylamino)sulfonyl]amino]carbonyl]-6-[phenyl[(phenylamino)(phenylimino)methyl]amino]-, 2,6-bis(1,1-dimethylethyl)-4-methylcyclohexyl ester (9CI) (CA INDEX NAME)

PAGE 1-A



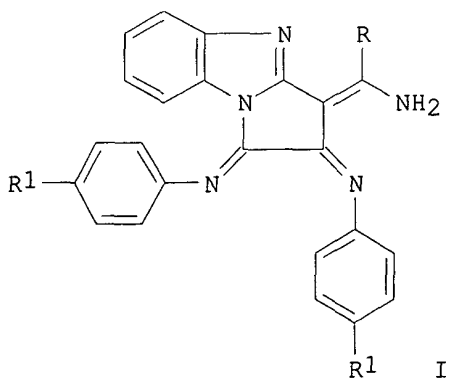
PAGE 2-A



L37 ANSWER 2 OF 6 HCA COPYRIGHT 2003 ACS

135:242184 Synthesis of radialene-shaped pyrroles by multiple-anion-capture reactions of 1,3-dianions. Langer, Peter; Doring, Manfred; Schreiner, Peter R.; Gorls, Helmar (Institut für Organische Chemie der Georg-August-Universität Göttingen, Göttingen, 37077, Germany). Chemistry--A European Journal, 7(12), 2617-2627 (English) 2001. CODEN: CEUJED. ISSN: 0947-6539. OTHER SOURCES: CASREACT 135:242184. Publisher: Wiley-VCH Verlag GmbH.

GI



AB A new multicomponent reaction (multiple-anion-capture reaction) of

1,3-dianions with nitriles and oxalic acid-bis(imidoyl chlorides) is reported. This process allows for an efficient and regioselective synthesis of a variety of radialene-shaped pyrroles, e.g., I (R = Ph, p-tolyl, CMe<sub>3</sub>; R<sub>1</sub> = H, Me), which constitute structurally new and interesting heterocyclic systems. The cyclization products can be considered as aza-analogs of the pharmacol. relevant substance class of 3-acetyltetramic acids. A rationalization of the exptl. results is given based on quantum chem. computations.

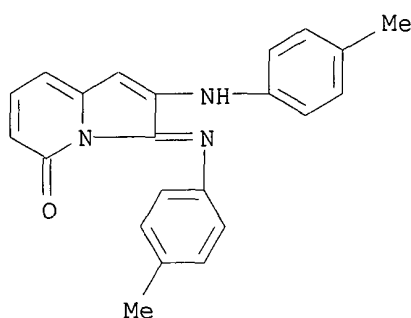
IT 207277-05-2P 207277-06-3P 207277-07-4P

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of radialene-shaped pyrroles by multiple-anion-capture reactions of 1,3-dianions)

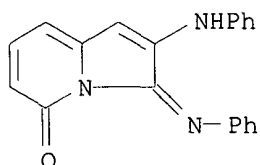
RN 207277-05-2 HCA

CN 5(3H)-Indolizinone, 2-[(4-methylphenyl)amino]-3-[(4-methylphenyl)imino]-  
(9CI) (CA INDEX NAME)



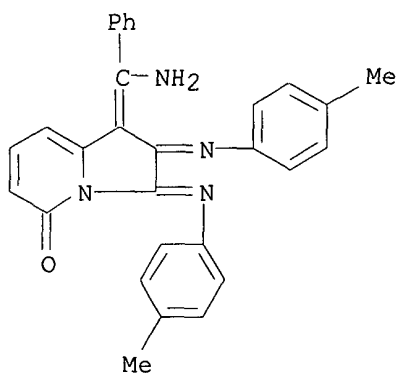
RN 207277-06-3 HCA

CN 5(3H)-Indolizinone, 2-(phenylamino)-3-(phenylimino)- (9CI) (CA INDEX NAME)



RN 207277-07-4 HCA

CN 5(1H)-Indolizinone, 1-(aminophenylmethylene)-2,3-dihydro-2,3-bis[(4-methylphenyl)imino]- (9CI) (CA INDEX NAME)





L37 ANSWER 3 OF 6 HCA COPYRIGHT 2003 ACS

129:4632 Regioselective reactions of ambident dianions. Part 3. New and convenient synthesis of pyrrolo[1,2-a]benzimidazoles and indolizinones based on regioselective cyclization reactions of heterocyclic dianions. Langer, Peter; Doering, Manfred (Institut Organische Chemie, Georg-August-Universitaet, Goettingen, D-37077, Germany). Synlett (4), 399-401 (English) 1998. CODEN: SYNLES. ISSN: 0936-5214. OTHER SOURCES: CASREACT 129:4632. Publisher: Georg Thieme Verlag.

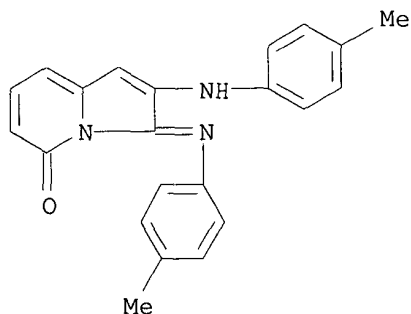
AB A regioselective annulation method for the prepn. of substituted pyrrolo[1,2-a]benzimidazoles and indolizinones by cyclization of delocalized dianions with oxalic acid bis(imidoyl) dichlorides is reported.

IT 207277-05-2P 207277-06-3P 207277-07-4P

RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of pyrrolobenzimidazoles and indolizinones by regioselective cyclocondensation of nitrogen heterocyclic dianions)

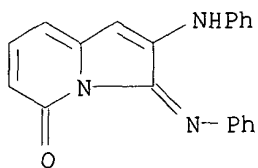
RN 207277-05-2 HCA

CN 5(3H)-Indolizinone, 2-[(4-methylphenyl)amino]-3-[(4-methylphenyl)imino]-  
(9CI) (CA INDEX NAME)



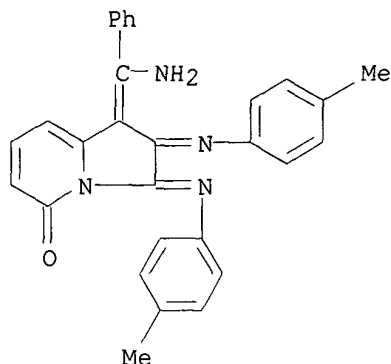
RN 207277-06-3 HCA

CN 5(3H)-Indolizinone, 2-(phenylamino)-3-(phenylimino)- (9CI) (CA INDEX NAME)



RN 207277-07-4 HCA

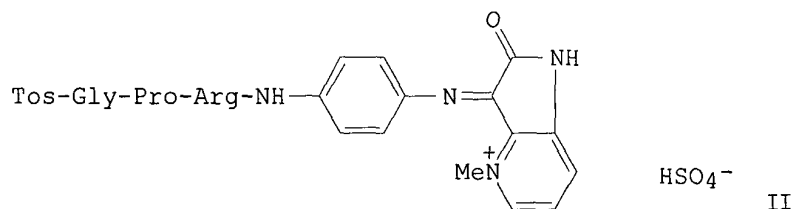
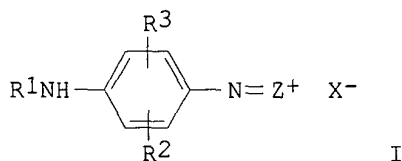
CN 5(1H)-Indolizinone, 1-(aminophenylmethylene)-2,3-dihydro-2,3-bis[(4-methylphenyl)imino]- (9CI) (CA INDEX NAME)



L37 ANSWER 4 OF 6 HCA COPYRIGHT 2003 ACS

110:232089 Preparation and testing of [4-(peptidylamino)phenylimino]heterocycles as reagents for determination of proteolytic enzymes. Wielinger, Hans; Zimmermann, Gerd (Boehringer Mannheim G.m.b.H., Fed. Rep. Ger.). Ger. Offen. DE 3710937 A1 19881013, 24 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1987-3710937 19870401.

GI



AB The title compds. [I; R1 = (protected) peptide residue; R2, R3 = H, alkyl, alkoxy, carboxy, alkoxy carbonyl, carboxamido; neighboring R2R3 = CH:CHCH:CH; Z = conjugated heterocycle; X = org., inorg. anion] useful in detn. of proteolytic enzymes, were prepd. Tosylglycyl-L-prolyl-L-arginyl-(4-nitrosoanilide)-1/2 SO4 (prepn. given) was condensed with 2H-1,4-dihydro-4-methylpyrrolo[3,2-b]pyridin-2-one (prepn. given) in DMF at room temp. to give the reagent II. II had .lambda.max of 526 nm, while the cleavage product showed .lambda.max = 544 nm.

IT 120599-61-3P 120599-64-6P

RL: SPN (Synthetic preparation); PREP (Preparation)

(prepn. of, as diagnostic reagent for proteolytic enzymes)

RN 120599-61-3 HCA

CN 3H-Indolizinium, 3-[[4-[[2-[[[(1,1-dimethylethoxy)carbonyl]amino]-1-oxopropyl]amino]-2-methoxyphenyl]imino]-1,2-dimethyl-, (S)-, acetate (9CI)

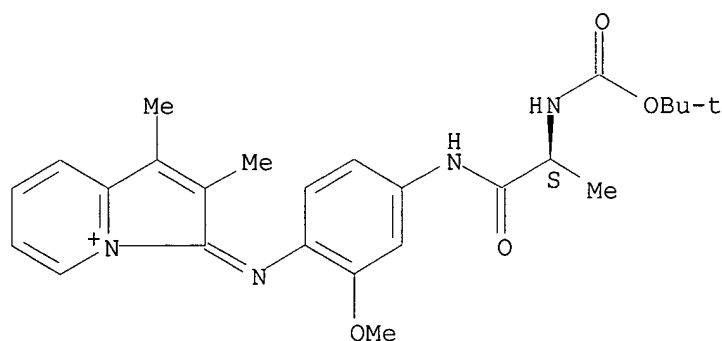
(CA INDEX NAME)

CM 1

CRN 120599-60-2

CMF C25 H31 N4 O4

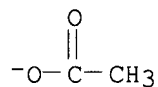
Absolute stereochemistry.  
Double bond geometry unknown.



CM 2

CRN 71-50-1

CMF C2 H3 O2



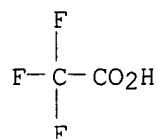
RN 120599-64-6 HCA

CN 3H-Indolizinium, 3-[[4-[(2-amino-1-oxopropyl)amino]-2-methoxyphenyl]imino]-1,2-dimethyl-, (S)-, salt with trifluoroacetic acid (1:1), mono(trifluoroacetate) (9CI) (CA INDEX NAME)

CM 1

CRN 76-05-1

CMF C2 H F3 O2



CM 2

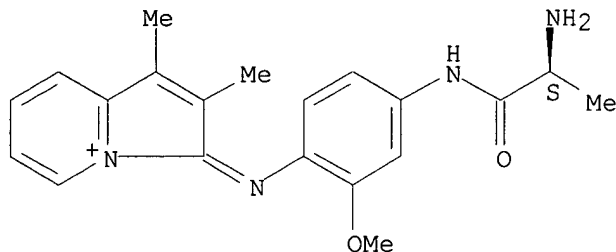
CRN 120599-63-5

CMF C20 H23 N4 O2 . C2 F3 O2

CM 3

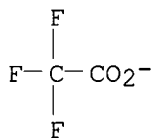
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CMF C20 H23 N4 O2

Absolute stereochemistry.  
Double bond geometry unknown.



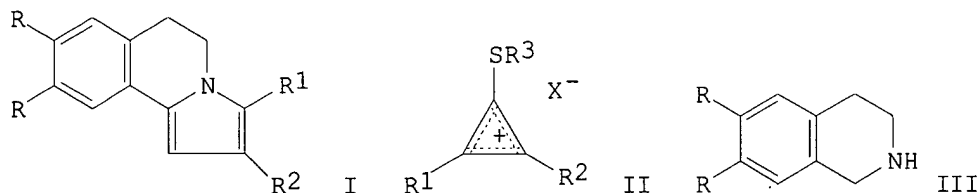
CM 4

CRN 14477-72-6  
CMF C2 F3 O2



L37 ANSWER 5 OF 6 HCA COPYRIGHT 2003 ACS  
98:143286 Dihydropyrrolo[2,1-a]isoquinoline derivatives. (Mitsubishi Chemical Industries Co., Ltd., Japan). Jpn. Kokai Tokkyo Koho JP 57146773 A2  
19820910 Showa, 3 pp. (Japanese). CODEN: JKXXAF. APPLICATION: JP  
1981-33451 19810309.

GI



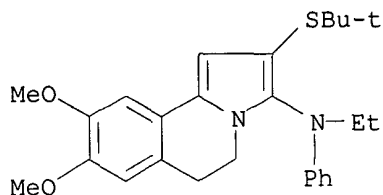
AB Hypotensive (no data) title compds. I (R, R1, R2 = H, Me3CS, Me3CS; MeO, Me3CS, Me3CS; MeO, MeS, MeS; MeO, Ph, Ph; MeO, EtPhN, Me3CS; MeO, MeS, Me3CS) were prepd. by reaction of II (R3 = alkyl, X = anions) with III. Thus, stirring II (R1 = R2 = Me3CS, R3 = Me3C, X = ClO4-) with III (R = H) in DMF 3 h at room temp. gave 46.4% I (R = H, R1 = R2 = Me3CS).

IT **85149-42-4P**

RL: SPN (Synthetic preparation); PREP (Preparation)  
(prepn. of)

RN 85149-42-4 HCA

CN Pyrrolo[2,1-a]isoquinolin-3-amine, 2-[(1,1-dimethylethyl)thio]-N-ethyl-5,6-dihydro-8,9-dimethoxy-N-phenyl- (9CI) (CA INDEX NAME)



L37 ANSWER 6 OF 6 HCA COPYRIGHT 2003 ACS

94:103320 Reaction of phthalodinitrile with aromatic o-cyanamines. Ponomarev, I. I.; Vasyukova, N. I.; Siling, S. A.; Lokshin, B. V.; Vinogradova, S. V.; Korshak, V. V. (Inst. Elementoorg. Soedin., Moscow, USSR). Izvestiya Akademii Nauk SSSR, Seriya Khimicheskaya (8), 1866-70 (Russian) 1980. CODEN: IASKA6. ISSN: 0002-3353.

GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

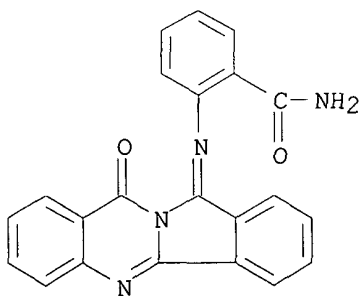
AB Condensation of o-C<sub>6</sub>H<sub>4</sub>(CN)<sub>2</sub> (I) with o-H<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>CN gave II, which was also obtained by isomerization of III. Treatment of I with (3,4-NC(H<sub>2</sub>N)C<sub>6</sub>H<sub>3</sub>)<sub>2</sub>CH<sub>2</sub> gave 90% IV. I and o-H<sub>2</sub>NCOC<sub>6</sub>H<sub>4</sub>NH<sub>2</sub> (V) in MeOH contg. MeONa followed by treatment at 200-30.degree. gave VI; VI with addnl. V at 200.degree. gave VII, which was cyclized with polyphosphoric acid to give VIII.

IT 76073-69-3P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
(prepn. and cyclization of)

RN 76073-69-3 HCA

CN Benzamide, 2-[(10-oxoisindolo[1,2-b]quinazolin-12(10H)-ylidene)amino]-(9CI) (CA INDEX NAME)



=> file caold

FILE 'CAOLD' ENTERED AT 09:23:10 ON 05 MAR 2003

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FILE COVERS 1907-1966

This file contains CAS Registry Numbers for easy and accurate substance identification. Title keywords, authors, patent assignees, and patent information, e.g., patent numbers, are now searchable from 1907-1966. TIFF images of CA abstracts printed between 1907-1966 are available in the PAGE display formats.

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AN CA54:3981b CAOLD

AU Wilkinson, Donald G.

PA Imperial Chemical Industries Ltd.

DT Patent

PATENT NO.	KIND	DATE
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PI US 2884423 1959

DE 1077353

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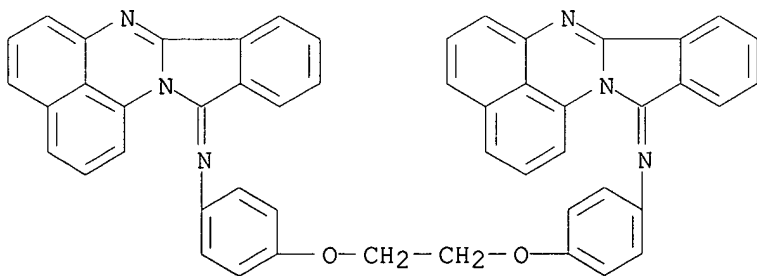
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IT 108322-43-6 121446-27-3 122337-34-2

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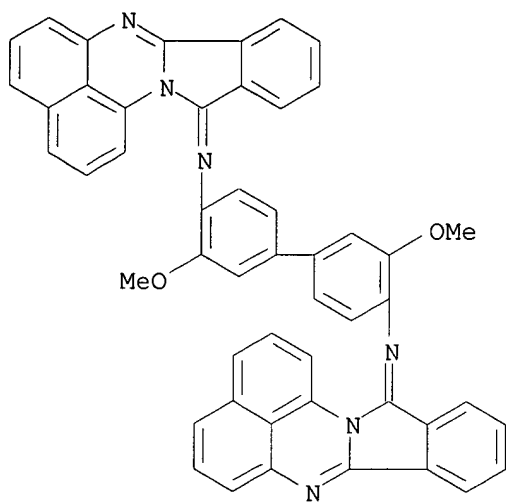
RN 108322-43-6 CAOLD

CN Phthaloperine, 12,12'-[ethylenebis(oxy-p-phenylenenitrilo)]bis- (6CI) (CA  
INDEX NAME)

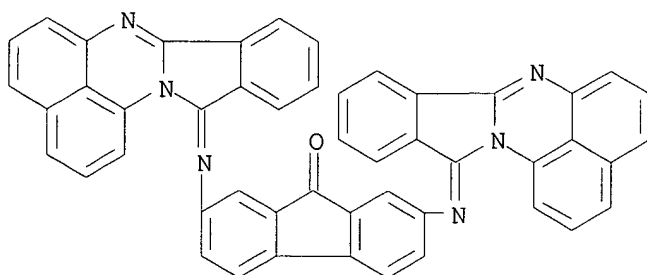


RN 121446-27-3 CAOLD

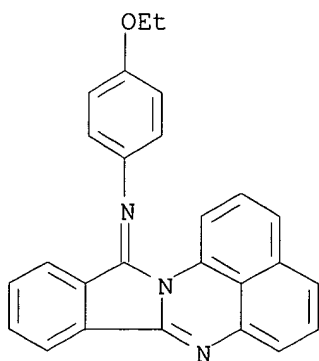
CN Phthaloperine, 12,12'-(3,3'-dimethoxy-4,4'-biphenylylenedinitrilo)bis-  
(6CI) (CA INDEX NAME)



RN 122337-34-2 CAOLD  
 CN Fluoren-9-one, 2,7-bis(12-phthaloperinylideneamino)- (6CI) (CA INDEX NAME)



RN 124145-42-2 CAOLD  
 CN Phthaloperine, 12-(p-ethoxyphenylimino)- (6CI) (CA INDEX NAME)



RN 124289-43-6 CAOLD  
 CN Metanilamide, N1,N1-diethyl-4-methoxy-N3-12-phthaloperinylidene- (6CI)  
 (CA INDEX NAME)

